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Missouri Public
Service Commission

MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT COST OF SERVICE APPENDICES

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2011-0337

*Jefferson City, Missouri
November 2011*

Staff Exhibit No. 3
Date 2-21-12 Reporter JL
File No. WR-2011-0337

MISSOURI PUBLIC SERVICE COMMISSION

**STAFF REPORT
COST OF SERVICE**

**APPENDIX 1
Staff Credentials**

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2011-0337

APPENDIX 1

STAFF CREDENTIALS TABLE OF CONTENTS

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MATTHEW J. BARNES

Educational and Employment Background and Credentials

I am a Regulatory Auditor IV in the Utility Operations Department, Energy Resource Analysis Section for the Missouri Public Service Commission. I accepted the position of Utility Regulatory Auditor I/II/III in June 2003. I was promoted to the position of Utility Regulatory Auditor IV in July 2008.

In December 2002, I earned a Bachelor of Science Degree in Business Administration with an Emphasis in Accounting from Columbia College. I earned a Masters in Business Administration with an Emphasis in Accounting from William Woods University in May 2005.

SUMMARY

OF

MATTHEW J. BARNES

CASE PARTICIPATION

SCHEDULE 1

Date Filed	Issue	Case Number	Exhibit	Case Name
09/08/2004	Merger with TXU Gas	GM20040607	Staff Recommendation	Atmos Energy Corporation
10/15/2004	Rate of Return	TC20021076	Supplemental Direct	BPS Telephone Company
06/28/2005	Finance Recommendation	EF20050387	Staff Recommendation	Kansas City Power and Light Company
06/28/2005	Finance Recommendation	EF20050388	Staff Recommendation	Kansas City Power and Light Company
08/31/2005	Finance Recommendation	EF20050498	Staff Recommendation	Kansas City Power and Light Company
11/15/2005	Spin-off of landline operations	IO20060086	Rebuttal	Sprint Nextel Corporation
03/08/2006	Spin-off of landline operations	TM20060272	Rebuttal	Alltel Missouri, Inc.
08/08/2006	Rate of Return	ER20060314	Direct	Kansas City Power & Light Company
09/08/2006	Rate of Return	ER20060314	Rebuttal	Kansas City Power & Light Company
09/13/2006	Rate of Return	GR20060387	Direct	Atmos Energy Corporation

SUMMARY

OF

MATTHEW J. BARNES

CASE PARTICIPATION

SCHEDULE 1

Date Filed	Issue	Case Number	Exhibit	Case Name
10/06/2006	Rate of Return	ER20060314	Surrebuttal	Kansas City Power & Light Company
11/07/2006	Rate of Return	ER20060314	True-Up Direct	Kansas City Power & Light Company
11/13/2006	Rate of Return	GR20060387	Rebuttal	Atmos Energy Corporation
11/23/2006	Rate of Return	GR20060387	Surrebuttal	Atmos Energy Corporation
12/01/2006	Rate of Return	WR20060425	Direct	Algonquin Water Resources of Missouri LLC
12/28/2006	Rate of Return	WR20060425	Rebuttal	Algonquin Water Resources of Missouri LLC
01/12/2007	Rate of Return	WR20060425	Surrebuttal	Algonquin Water Resources of Missouri LLC
02/07/2007	Finance Recommendation	GF20070220	Staff Recommendation	Laclede Gas Company
05/04/2007	Rate of Return	GR20070208	Direct	Laclede Gas Company

SUMMARY
OF
MATTHEW J. BARNES
CASE PARTICIPATION
SCHEDULE 1

Date Filed	Issue	Case Number	Exhibit	Case Name
07/24/2007	Rate of Return	ER20070291	Direct	Kansas City Power and Light Company
08/30/2007	Rate of Return	ER20070291	Rebuttal	Kansas City Power and Light Company
09/20/2007	Rate of Return	ER20070291	Surrebuttal	Kansas City Power and Light Company
11/02/2007	Rate of Return	ER20070291	True-up Direct	Kansas City Power and Light Company
02/01/2008	Finance Recommendation	EF20080214	Staff Recommendation	Kansas City Power and Light Company
02/22/2008	Rate of Return	ER20080093	Staff Report	The Empire District Electric Company
04/04/2008	Rate of Return	ER20080093	Rebuttal Testimony	The Empire District Electric Company
04/25/2008	Rate of Return	ER20080093	Surrebuttal Testimony	The Empire District Electric Company
08/18/2008	Rate of Return	WR20080311	Staff Report	Missouri-American Water Company
09/30/2008	Rate of Return	WR20080311	Rebuttal Testimony	Missouri-American Water Company

SUMMARY
OF
MATTHEW J. BARNES
CASE PARTICIPATION
SCHEDULE 1

Date Filed	Issue	Case Number	Exhibit	Case Name
10/16/2008	Rate of Return	WR2008031	Surrebuttal Testimony	Missouri-American Water Company
02/26/2010	Fuel Adjustment Clause	ER20100130	Staff Report	The Empire District Electric Company
04/02/2010	Fuel Adjustment Clause	ER20100130	Rebuttal Testimony	The Empire District Electric Company
04/23/2010	Fuel Adjustment Clause	ER20100130	Surrebuttal Testimony	The Empire District Electric Company
02/23/11	Fuel Adjustment Clause	ER20110004	Staff Report	The Empire District Electric Company
04/22/11	Fuel Adjustment Clause	ER20110004	Rebuttal Testimony	The Empire District Electric Company
04/28/11	Fuel Adjustment Clause	ER20110004	Surrebuttal Testimony	The Empire District Electric Company
05/06/11	Fuel Adjustment Clause	ER20110004	True-up Direct Testimony	The Empire District Electric Company
10/21/11	Costs for the Phase-In Tariffs	ER20120024	Direct Testimony	KCP&L Greater Missouri Operations Company

Kimberly K. Bolin
Utility Regulatory Auditor IV

EDUCATION

Bachelors of Business Administration
Central Missouri State University, Warrensburg, MO – May 1993

PROFESSIONAL EXPERIENCE

Missouri Public Service Commission
Utility Regulatory Auditor V
January 2008-Present
Utility Regulatory Auditor IV
November 2006 – January 2008
Utility Regulatory Auditor III
March 2006 – November 2006
Accountant I
April 2005 – February 2006

Missouri Office of the Public Counsel
Public Utility Accountant
September 1994 – April 2005

Missouri Department of Revenue, Taxation
Tax Processing Technician
July 1993 – August 1994

I graduated from Central Missouri State University in Warrensburg, Missouri, with a Bachelor of Science in Business Administration, major emphasis in Accounting, in May 1993. Before coming to work at the Missouri Public Service Commission, I was employed by the Missouri Office of the Public Counsel as a Public Utility Accountant from September 1994 to April 2005. I commenced employment with the Missouri Public Service Commission in April 2005.

I am responsible for performing audits and examinations of the books and records of public utilities operating within the state of Missouri. Please refer to Schedule KKB 1, for a list of the cases in which I have filed testimony before the Missouri Public Service Commission.

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Missouri-American Water Company	WR-2010-0131	<u>Report on Cost of Service</u> - Pension/OPEB Tracker, Tank Painting Tracker, Deferred Income Taxes, FAS 87 Pension Costs, FAS 106 – Other Post-Employment Benefits, Incentive Compensation, Group Insurance and 401(k) Employer Costs, Tank Painting Expense, Dues and Donations, Advertising Expense, Promotional Items, Current and Deferred Income Tax Expense	Settled
Empire District Gas Company	GR-2009-0434	<u>Report on Cost of Service</u> – Prepaid Pension Asset, Pension Tracker Asset/Liability, Unamortized Accounting Authority Order Balances, Pension Expense, OPEBs, Amortization of Stock Issuance Costs, Amortization of Accounting Authority Orders <u>Direct</u> – Overview of Staff's Filing	Settled
Laclede Gas Company	GT-2009-0056	<u>Surrebuttal Testimony</u> – Tariff	Contested
Missouri-American Water Company	WR-2008-0311 & SR-2008-0312	<u>Report on Cost of Service</u> – Tank Painting Tracker, Lobbying Costs, PSC Assessment <u>Direct</u> – Overview of Staff's Filing <u>Rebuttal</u> – True-Up Items, Unamortized Balance of Security AAO, Tank Painting Expense, Fire Hydrant Painting Expense <u>Surrebuttal</u> – Unamortized Balance of Security AAO, Cedar Hill Waste Water Plant, Tank Painting Expense, Fire Hydrant Painting Expense	Settled
Missouri Gas Utility, Inc.	GR-2008-0060	<u>Report on Cost of Service</u> – Plant-in Service/Capitalization Policy, Plant-in Service/Purchase Price Valuation, Depreciation Reserve, Revenues, Uncollectible Expense	Settled

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Laclede Gas Company	GR-2007-0208	Direct- Test Year and True-Up, Environmental costs, AAOs, Revenue, Miscellaneous Revenue, Gross receipts Tax, Gas Costs, Uncollectibles, EWCR, AMR, Acquisition Adjustment	Settled
Kansas City Power and Light Company	ER-2006-0314	Direct- Gross Receipts Tax, Revenues, Weather Normalization, Customer Growth/Loss Annualization, Large Customer Annualization, Other Revenue, Uncollectible (Bad Debt) Expense, Payroll, A&G Salaries Capitalization Ratio, Payroll Taxes, Employer 401 (k) Match, Other Employee Benefits Surrebuttal- Uncollectible (Bad Debt) Expense, Payroll, A&G Salaries Capitalization Ratio, Other Employee Benefits	Contested
Missouri Gas Energy	GR-2006-0204	Direct- Payroll, Incentive Compensation, Payroll Taxes, Employee Benefits, Lobbying, Customer & Governmental Relations Department, Collections Contract	Settled

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

WHILE EMPLOYED WITH THE OFFICE OF THE PUBLIC COUNSEL

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Missouri Gas Energy	GU-2005-0095	<u>Rebuttal</u> - Accounting Authority Order <u>Surrebuttal</u> - Accounting Authority Order	Contested
The Empire District Electric Company	ER-2004-0570	<u>Direct</u> - Payroll	Settled
Missouri American Water Company & Cedar Hill Utility Company	SM-2004-0275	<u>Direct</u> - Acquisition Premium	Settled
Missouri Gas Energy	GR-2004-0209	<u>Direct</u> - Safety Line Replacement Program; Environmental Response Fund; Dues & Donations; Payroll; Customer & Governmental Relations Department Disallowance; Outside Lobbyist Costs <u>Rebuttal</u> - Customer Service; Incentive Compensation; Environmental Response Fund; Lobbying/Legislative Costs <u>True-Up</u> - Rate Case Expense	Contested
Osage Water Company	ST-2003-0562 / WT-2003-0563	<u>Direct</u> - Payroll <u>Rebuttal</u> - Payroll; Lease Payments to Affiliated Company; alleged Legal Requirement of a Reserve	Case Dismissed
Missouri American Water Company	WR-2003-0500	<u>Direct</u> - Acquisition Adjustment; Water Treatment Plant Excess Capacity; Retired Treatment Plan; Affiliated Transactions; Security AAO; Advertising Expense; Customer Correspondence	Settled
Empire District Electric	ER-2002-424	<u>Direct</u> - Dues & Donations; Memberships; Payroll; Security Costs <u>Rebuttal</u> - Energy Traders' Commission <u>Surrebuttal</u> - Energy Traders' Commission	Settled

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

WHILE EMPLOYED WITH THE OFFICE OF THE PUBLIC COUNSEL

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Laclede Gas Company	GR-2002-356	<u>Direct</u> - Advertising Expense; Safety Replacement Program and the Copper Service Replacement Program; Dues & Donations; Rate Case Expense <u>Rebuttal</u> - Gas Safety Replacement Program / Deferred Income Taxes for AAOs	Settled
Missouri-American Water Company	WO-2002-273	<u>Rebuttal</u> - Accounting Authority Order <u>Cross-Surrebuttal</u> - Accounting Authority Order	Contested
Environmental Utilities	WA-2002-65	<u>Direct</u> - Water Supply Agreement <u>Rebuttal</u> - Certificate of Convenience & Necessity	Contested
Warren County Water & Sewer	WC-2002-160 / SC-2002-155	<u>Direct</u> - Clean Water Act Violations; DNR Violations; Customer Service; Water Storage Tank; Financial Ability; Management Issues <u>Surrebuttal</u> - Customer Complaints; Poor Management Decisions; Commingling of Regulated & Non-Related Business	Contested
Laclede Gas Company	GR-2001-629	<u>Direct</u> - Advertising Expense; Safety Replacement Program; Dues & Donations; Customer Correspondence	Settled
Gateway Pipeline Company	GM-2001-585	<u>Rebuttal</u> - Acquisition Adjustment; Affiliated Transactions; Company's Strategic Plan	Contested
Empire District Electric	ER-2001-299	<u>Direct</u> - Payroll; Merger Expense <u>Rebuttal</u> - Payroll <u>Surrebuttal</u> - Payroll	Settled
Osage Water Company	SR-2000-556/ WR-2000-557	<u>Direct</u> - Customer Service	Contested

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

WHILE EMPLOYED WITH THE OFFICE OF THE PUBLIC COUNSEL

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
St. Louis County Water Company	WR-2000-844	<u>Direct</u> - Main Incident Expense	Settled
Missouri American Water Company	WR-2000-281/ SR-2000-282	<u>Direct</u> - Water Plant Premature Retirement; Rate Case Expense <u>Rebuttal</u> - Water Plant Premature Retirement <u>Surrebuttal</u> - Water Plant Premature Retirement	Contested
Laclede Gas Company	GR-99-315	<u>Direct</u> - Advertising Expense; Dues & Donations; Miscellaneous Expense; Items to be Trued-up	Contested
St. Joseph Light & Power	HR-99-245	<u>Direct</u> - Advertising Expense; Dues & Donations; Miscellaneous Expense; Items to be Trued-up <u>Rebuttal</u> - Advertising Expense <u>Surrebuttal</u> - Advertising Expense	Settled
St. Joseph Light & Power	ER-99-247	<u>Direct</u> - Merger Expense; Rate Case Expense; Deferral of the Automatic Mapping/Facility Management Costs <u>Rebuttal</u> - Merger Expense; Rate Case Expense; Deferral of the Automatic Mapping/Facility Management Costs <u>Surrebuttal</u> - Merger Expense; Rate Case Expense; Deferral of the Automatic Mapping/Facility Management Costs	Settled
Laclede Gas Company	GR-98-374	<u>Direct</u> - Advertising Expense; Gas Safety Replacement AAO; Computer System Replacement Costs	Settled
Missouri Gas Energy	GR-98-140	<u>Direct</u> - Payroll; Advertising; Dues & Donations; Regulatory Commission Expense; Rate Case Expense	Contested

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

WHILE EMPLOYED WITH THE OFFICE OF THE PUBLIC COUNSEL

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Gascony Water Company, Inc.	WA-97-510	<u>Rebuttal</u> - Rate Base; Rate Case Expense; Cash Working Capital	Settled
Union Electric Company	GR-97-393	<u>Direct</u> - Interest Rates for Customer Deposits	Settled
St. Louis County Water Company	WR-97-382	<u>Direct</u> - Interest Rates for Customer Deposits, Main Incident Expense	Settled
Associated Natural Gas Company	GR-97-272	<u>Direct</u> - Acquisition Adjustment; Interest Rates for Customer Deposits <u>Rebuttal</u> - Acquisition Adjustment; Interest Rates for Customer Deposits <u>Surrebuttal</u> - Interest Rates for Customer Deposits	Contested
Missouri-American Water Company	WA-97-45	<u>Rebuttal</u> - Waiver of Service Connection Charges	Contested
Imperial Utility Corporation	SC-96-427	<u>Direct</u> - Revenues, CIAC <u>Surrebuttal</u> - Payroll; Uncollectible Accounts Expense; Rate Case Expense, Revenues	Settled
St. Louis Water Company	WR-96-263	<u>Direct</u> - Main Incident Repairs <u>Rebuttal</u> - Main Incident Repairs <u>Surrebuttal</u> - Main Incident Repairs	Contested
Steelville Telephone Company	TR-96-123	<u>Direct</u> - Depreciation Reserve Deficiency	Settled

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

WHILE EMPLOYED WITH THE OFFICE OF THE PUBLIC COUNSEL

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Missouri-American Water Company	WR-95-205/ SR-95-206	<u>Direct</u> - Property Held for Future Use; Premature Retirement of Sewer Plant; Depreciation Study Expense; Deferred Maintenance <u>Rebuttal</u> - Property Held for Future Use; Premature Retirement of Sewer Plant; Deferred Maintenance <u>Surrebuttal</u> - Property Held for Future Use; Premature Retirement of Sewer Plant	Contested
St. Louis County Water Company	WR-95-145	<u>Rebuttal</u> - Tank Painting Reserve Account; Main Repair Reserve Account <u>Surrebuttal</u> - Main Repair Reserve Account	Contested

JAMES A. BUSCH

Brief Work History

Currently, I am the Manager of the Water and Sewer Unit of the Missouri Public Service Commission (PSC or Commission). I have 14 years of experience in the field of public utility regulation. I spent two and a half years working as an Economist I in the PSC's Procurement Analysis Unit working primarily on hedging programs for natural gas procurement and reviewing and designing incentive plans. I then worked for almost five and a half years with the Missouri Office of the Public Counsel (Public Counsel) as a Public Utility Economist. During my tenure at Public Counsel, I worked on numerous issues in the electric, natural gas, and water/sewer industries. I then transferred back to the PSC as an Economist III in the Commission's Energy Section. While employed in the Energy Section I worked exclusively on electric industry issues including conducting rate design/class cost of service studies, demand-side management, and integrated resource planning. For the past three and a half years, I have been the Manager of the Water and Sewer Unit supervising a staff of six technical experts. My duties as the Manager of Water and Sewer involve all aspects of the Commission's regulation of the water and sewer industries including customer complaints, reviewing testimony, setting policy, and working with the utilities to promote best practices in their provision of safe and adequate service at just and reasonable rates.

Furthermore, I have been a member of the Adjunct Faculty at Columbia College and Stephens College. I have been teaching at Columbia College since 2000. Courses that I teach or have taught include introductory micro- and macroeconomics, Intermediate Microeconomics, and Managerial Economics. These courses are taught either on-site or over the internet. I was the developer of the Intermediate Microeconomics course currently being offered at Columbia College. At Stephens College, I taught a macroeconomics course and an Entrepreneurial Finance Course in 2007.

Education

Masters of Science – Economics
Southern Illinois University at Edwardsville

Bachelors of Science – Economics
Southern Illinois University at Edwardsville

**Cases of Filed Testimony
James A. Busch**

<u>Company</u>	<u>Case No.</u>
Union Electric Company	GR-97-393
Missouri Gas Energy	GR-98-140
Laclede Gas Company	GO-98-484
Laclede Gas Company	GR-98-374
St. Joseph Light & Power	GR-99-246
Laclede Gas Company	GT-99-303
Laclede Gas Company	GR-99-315
Fiber Four Corporation	TA-2000-23; et al.
Missouri-American Water Company	WR-2000-281/SR-2000-282
Union Electric Company d/b/a AmerenUE	GR-2000-512
St. Louis County Water	WR-2000-844
Empire District Electric Company	ER-2001-299
Missouri Gas Energy	GR-2001-292
Laclede Gas Company	GT-2001-329
Laclede Gas Company	GO-2000-394
Laclede Gas Company	GR-2001-629
UtiliCorp United, Inc.	ER-2001-672
Union Electric Company d/b/a AmerenUE	EC-2001-1
Laclede Gas Company	GR-2002-356
Empire District Electric Company	ER-2002-424
Southern Union Company	GM-2003-0238
Aquila, Inc.	EF-2003-0465
Missouri-American Water Company	WR-2003-0500
Union Electric Company d/b/a AmerenUE	GR-2003-0517
Aquila, Inc.	ER-2004-0034
Aquila, Inc.	GR-2004-0072
Missouri Gas Energy	GR-2004-0209
Empire District Electric Company	ER-2004-0570
Aquila, Inc.	EO-2002-0384
Aquila, Inc.	ER-2005-0436
Empire District Electric Company (CC)	ER-2006-0315
Kansas City Power & Light (CC)	ER-2006-0314
Union Electric Company d/b/a AmerenUE	ER-2007-0002
Aquila, Inc.	EO-2007-0395
Missouri-American Water Company (Live)	WC-2009-0277
Missouri-American Water Company	WR-2010-0131
Review of Economic, Legal and Policy Considerations Of District Specific Pricing and Single Tariff Pricing (Live)	SW-2011-0103
Timber Creek Sewer Company	SR-2011-0320

CC – Case Coordinator

Keith D. Foster

Educational and Employment Background and Credentials

I am currently employed as a Utility Regulatory Auditor III for the Missouri Public Service Commission (Commission) within the Auditing Unit. I was employed by the Commission in January 2008. After a 27-year career in the Information Systems (IS) industry, I returned to college and earned a Bachelor of Science degree in Business Administration, major in Accounting from Columbia College. I graduated summa cum laude in October 2007.

Most recently, I was employed by IBM as a Project Manager from March 1991 to December 1998 and as a Project Executive from January 1999 until April 2002. In my capacity as Project Executive, I managed the development and implementation of welfare reform and other system enhancements, ongoing operations and maintenance activities, warranty support, application help desk, and system turnover for the Missouri Automated Child Support System (MACSS), a statewide integrated financial and case management system. I managed all budget, revenue, and profit objectives; developed and maintained detailed spreadsheets to prepare project budgets and revenue projections, to track and manage project costs and revenue daily, and to reconcile with corporate accounting.

I am a member of the Institute of Internal Auditors (IIA) as well as the Project Management Institute (PMI) including the local chapters. I am currently a board member of the Mid-Missouri PMI chapter, serving my second term as Vice-President of Financial Affairs. In addition, I am a PMI-certified Project Management Professional (PMP), a credential I have held since January 2000.

As a Utility Regulatory Auditor, I perform rate audits and prepare miscellaneous filings as ordered by the Commission. In addition, I review all exhibits and testimony on

assigned issues, develop accounting adjustments, and issue positions which are supported by workpapers and written testimony. For cases that do not require prepared testimony, I prepare Staff Recommendation Memorandums.

Other cases I have been assigned are listed below:

Case/Tracking Number	Company Name - Issue
QW-2008-0010	Tri-States Utility, Inc. - Property Taxes; Fuel & Electricity Expense; Telephone Expense; Rent Expense; Plant in Service; Depreciation Schedule, Reserve, Rates, and Expense; Transportation Expense; Chemicals Expense; Waste Disposal; Insurance Expense; Contractual Services; Bad Debt Expense; Miscellaneous Expenses
WR-2008-0311	Missouri-American Water Company - Advertising & Promotional Items; Dues and Donations; Cash Working Capital; Plant in Service; Depreciation Expense; Depreciation Reserve; Franchise Tax; Property Taxes; Fuel & Electricity Expense; Telephone Expense; Postage Expense; Purchased Water; Prepayments; Materials & Supplies; Customer Advances; Contributions in Aid of Construction (CIAC)
WR-2009-0098	Raytown Water Company - Materials & Supplies; Prepayments; Customer Deposits; Revenues; Insurance Expense; Utilities Expense; Directors Fees; Office Supplies Expense; Postage Expense; Laboratory Fees; Transportation Expenses; Rate Case Expense; Regulatory Commission Expense
GO-2009-0302	Missouri Gas Energy - Infrastructure Service Replacement Surcharge (ISRS)
SA-2009-0319	Mid-MO Sanitation, LLC – Certificate Case; All Revenue and Expenses; Plant in Service; Depreciation Reserve; Other Rate Base Items
GR-2009-0355	Missouri Gas Energy – Payroll, Payroll Taxes, 401(k), and Other Employee Benefit Costs; Incentive Compensation and Bonuses; Medical and Dental Expense; Bad Debt Expense; Rate Case Expense; Pension Expense; FAS106/OPEBs; Prepaid Pension Asset (PPA); Franchise Tax Expense; Income Tax Expense
SR-2010-0095	Mid-MO Sanitation, LLC – Full Audit of All Revenue and Expenses; Plant in Service; Depreciation Reserve; Other Rate Base Items

Case/Tracking Number	Company Name - Issue
ER-2010-0130	Empire District Electric – Fuel and Purchased Power; Fuel Inventories; Gas Stored Underground; Off-System Sales; Transmission Revenue; Payroll, Payroll Taxes, and 401(k) Benefit Costs; Incentive Compensation; Maintenance Normalization Adjustments
WR-2010-0304	Raytown Water Company – Revenues; Rate Case Expense; Regulatory Commission Expense; Utilities Expense; Purchased Water; Insurance Expense; Laboratory Fees; Communication Expense; Transportation Expense
GO-2011-0003	Missouri Gas Energy - Infrastructure Service Replacement Surcharge (ISRS)
ER-2011-0004	Empire District Electric – Fuel and Purchased Power; Fuel Inventories; Gas Stored Underground; Maintenance Normalization Adjustments; Miscellaneous Revenues (SO2 Allowances and Renewable Energy Credits); Operations and Maintenance (O&M) Expenses for Iatan 2 and Plum Point; Transmission Revenue; Entergy Transmission Contract; Reconciliation

JERMAINE GREEN

Education and Employment Background and Credentials

I am currently employed as a Utility Regulatory Auditor III for the Missouri Public Service Commission (Commission). I began my employment with the Commission on June 2nd, 2009. In May 2009 I earned a Bachelor of Arts in Accounting from Westminster College in Fulton, MO. In earning this degree I completed numerous core Accounting and business classes. I look forward to completing my Masters in Business Administration at Lincoln University in May of 2012.

As a Utility Regulatory Auditor, I perform rate audits and prepare miscellaneous filings as ordered by the Public Service Commission. In addition, I review all exhibits and testimony on my assigned issues, develop adjustments and issue positions which I then support by work papers and written testimony. For those cases that do not require prepared testimony, I prepare Staff Recommendation Memorandums.

Other cases I have been assigned to or participated are:

Case Number	Company Name - Issue
WR-2011-0337	Missouri-American Water Company (MAWC) – Revenues, Rate Case Expense, Property Taxes, Bad Debt Expense, Postage Expense, Purchased Water, PSC Assessment, and Franchise Tax.
WA-2011-0260	Braden Park LLC (Certificate Case) – Payroll & Taxes, Purchased Water, Plant-in-Service, and Income Taxes
SR-2011-0133	Seges Mobile Home Park (Sewer Company) – Lead Auditor - Revenues, Payroll & Taxes, Plant-in-Service, Depreciation Reserve, Bad Debts, Property Tax, Materials & Supplies, Dues & Donations, and PSC Assessment.
WR-2011-0037	Tri-States Utility Inc. – Revenues, Payroll & Taxes, Plant-in-Service, CIAC, Depreciation Reserve, Fuel & Power, Chemicals, Bad Debts, Rent, Property Tax, Materials & Supplies, Dues & Donations, and PSC Assessment.

Case Number	Company Name - Issue
GR-2010-0347	Southern Missouri Natural Gas (SMNG) – Payroll & Payroll Taxes, Customer Deposits, Employee Benefits, Property Tax, Uncollectible Expense , Dues & Subscriptions, Rent, and Advertising.
WR-2010-0309	Middlefork Water Company – Chemicals, Payroll & Payroll Taxes, Revenues, Rate Case Expense, Fuel & Power, Insurance, Maintenance, Materials & Supplies, Transportation Expense and other expenses
WR-2010-0131	Missouri American Water Company (MAWC) – Cash Working Capital (CWC), Fuel & Power, Chemicals, Injuries & Damages, Property Tax, Rate Case Expense, Purchased Water, PSC Assessment, Property Tax, Insurance, Franchise Tax, and Telephone Expense.
WR-2010-0154	SK&M Water and Sewer Company - Plant in Service, Depreciation Expenses and Reserve, Fuel & Power, Revenues, and Customer Deposits
GR-2009-0434	Empire District Gas (EDG) - Plant in Service, Depreciation Expenses and Reserve, Cash Working Capital (CWC), Payroll & Payroll Taxes, Dues & Donations, PSC Assessment, Advertising, Materials & Supplies, Postage, Customer Deposit, Customer Advances and Prepayments
WR-2009-0395	Noel Water Company - Plant in Service, Depreciation Expenses and Reserve

Education, Background and Case Participation

Paul R. Harrison

I am a Utility Regulatory Auditor IV with the Missouri Public Service Commission (PSC or Commission). I have performed duties as a Utility Regulatory Auditor within the Auditing Unit at the Commission since January 18, 2000. I have also been responsible for the supervision of other Auditing Unit employees in rate cases and other regulatory proceedings before the Commission.

I graduated from Park College, Kansas City, Missouri, where I earned Bachelor of Science degrees in both Accounting and Management with Magna Cum Laude honors in July 1995. I earned an Associate degree in Missile Maintenance Technology from the Community College of the Air Force in June 1990. I attended and received a certificate of completion of an 86-hour H&R Block income tax training course in July 1996 and began my own tax practice during the same year. Each year, I receive Continuing Professional Education (CPE) through the Accounting CPE Network (ACPEN) concerning current accounting and auditing updates.

Prior to coming to work at the Commission, I was the manager for Tool Warehouse Inc. for four and one-half years. As the manager, I managed; supervised, coordinated and scheduled daily activities of personnel assigned to the Tool Warehouse. In addition, I created and maintained corporate monthly budgets; performed monthly inventory and generated inventory loss reports to corporate headquarters. I was responsible for the daily sales volume and ordered all merchandise, (\$2.5 million), for the tool warehouse in accordance with Tool Warehouse policy and procedures.

Prior to being the manager of the Tool Warehouse Inc, I was in the United States Air Force (USAF) for twenty-three years. During my career in the USAF, I was assigned many different duty positions with various levels of responsibility. I retired from active duty on May 1, 1994 as Superintendent of the 321st Strategic Missile Wing Missile Mechanical Flight. In that capacity, I supervised 95 missile maintenance technicians and managed assets valued in excess of \$50 million.

My duties at the Commission include performing audits of the books and records of regulated public utilities under the jurisdiction of the MoPSC, in conjunction with other Commission Staff (Staff) members. In this capacity, I am required to prepare testimony and serve as a Staff expert witness on rate cases concerning the ratemaking philosophy and methodology of issues that I am assigned.

I have acquired general knowledge of these topics through my experience and analyses in prior rate cases before this Commission. I have also acquired knowledge of these topics through review of Staff work papers for prior rate cases brought before this Commission. I have reviewed prior Commission decisions with regard to these areas. I have reviewed the Company's testimony, annual reports, work papers and responses to Staff's data requests addressing these topics. In addition, my college coursework included accounting and auditing classes. Since commencing employment with the Commission, I have attended various in house training seminars and National Association of Regulatory Utility Commission (NARUC) training conferences. I have participated in approximately thirty formal rate case proceedings. I have also participated in and supervised the work on a number of informal rate proceedings. As a senior auditor and the Lead Auditor on a number of cases, I have participated in the supervision and instruction of new accountants and auditors within the Utility Services Department.

The Schedule below lists the rate cases and issues in which I filed testimony, the issues that I have been assigned; and the small informal rate cases that I have completed.

CASE PROCEEDING/PARTICIPATION

PAUL R. HARRISON

<u>COMPANY</u>	<u>CASE NO.</u>	<u>TESTIMONY/ISSUES</u>
SUMMARY OF FORMAL CASES		
Missouri American Water Company	WR-2011-0336 WR-2011-0337 WR-2011-0338	In Progress Cost of Service Report- ISRS 2011; Pensions & OPEBS; Amort of Regulatory Assets; Acquisitions; Plant in Service; Depreciation Reserve, Depreciation Expense, Other Rate Base Items; Net Negative Salvage; Current & Deferred Income Taxes; ADIT; and Accounting Schedules. Lead Auditor
The Empire District Electric Company	ER-2011-0004	February 2011 Surrebuttal Testimony-Infrastructure Remediation Costs; FAS 123 Accumulated Deferred Income Taxes
The Empire District Electric Company	ER-2011-0004	February 2011 Cost of Service Report-Current & Deferred Income Taxes; ADIT; and Infrastructure & Tree Trimming Expense
KCPL-GMO MPS & L&P Electric	ER-2010-0356	January 2011 Surrebuttal Testimony- Advanced Coal Credits ITC; KC Earnings Tax True-Up - Pensions & OPEBS; Current Income & Deferred Taxes Litigated- Advanced Coal Credit ITC
Kansas City Power & Light (KCPL)	ER-2010-0355	January 2011 Surrebuttal Testimony- Advanced Coal Credits ITC; KC Earnings True-Up - Pensions & OPEBS; Current Income & Deferred Taxes Litigated- Advanced Coal Credit ITC
Kansas City Power & Light (KCPL)	ER-2010-0355	December 2010 Rebuttal Testimony- Regulatory Plan Amortization Impact on Income Taxes

COMPANY	CASE NO	TESTIMONY/ISSUES
KCPL-GMO MPS & L&P Electric	ER-2010-0356	<p align="center">November 2010</p> <p>Cost of Service Report- Pensions & OPEBS; Current & Deferred Income Taxes; Advanced Coal Credits ITC; KC Earnings Tax and Regulatory Plan Amortization Impact on Income Taxes</p>
Kansas City Power & Light (KCPL)	ER-2010-0355	<p align="center">November 2010</p> <p>Cost of Service Report- Pensions & OPEBS; Current & Deferred Income Taxes; Advanced Coal Credits ITC; KC Earnings Tax and Regulatory Plan Amortization Impact on Income Taxes</p>
The Empire District Electric Company	ER-2010-0130	<p align="center">April 2010</p> <p>Surrebuttal Testimony – Bad Debt Expense; Infrastructure Rule Expense; State Income Tax Flow Through Prior to 1994 – Tax Timing Differences</p> <p>Lead Auditor</p>
The Empire District Electric Company	ER-2010-0130	<p align="center">April 2010</p> <p>Rebuttal Testimony – State Income Tax Flow-Through Prior to 1994 – Tax Timing Differences</p> <p>Lead Auditor</p>
The Empire District Electric Company	ER-2010-0130	<p align="center">February 2010</p> <p>Cost of Service Report- Allocations; Pensions & OPEBS; DSM Program; Amortization Rate Base & Expense; Revenues; Bad Debt; Banking Fees; Infrastructure & Tree Trimming Expense; Employee Benefits; Lease Expense; O&M Expenses New Plant; Carrying Cost New Plant; Current & Deferred Income Taxes.</p> <p>Lead Auditor</p>
The Empire District Gas Company	GR-2009-0434	<p align="center">October 2009</p> <p>Cost of Service Report- Allocations/Rents; Right-of-Way Clearing; AAO-MGP Costs; Franchise Fees; Reconciliation; Current & Deferred Income Taxes.</p> <p>Lead Auditor</p>
Kansas City Power & Light (KCPL)	ER-2009-0089	<p align="center">April 2009</p> <p>Surrebuttal- Non-Talent Assessment Severance Costs</p> <p>True-Up - Pensions & OPEBS; Current & Deferred Income Taxes</p>

COMPANY	CASE NO.	TESTIMONY/ISSUES
KCPL-GMO MPS & L&P Electric	ER-2009-0090	<p style="text-align: center;">April 2009</p> <p>Surrebuttal-Cost of Removal-Income Taxes, Regulatory Asset Amortization.</p> <p>True-Up - Pensions & OPEBS; Income & Deferred Taxes</p> <p>Lead Auditor</p>
Kansas City Power & Light (KCPL)	ER-2009-0089	<p style="text-align: center;">March 2009</p> <p>Cost of Service Report- Pensions & OPEBS; Non-Talent Assessment Severance Costs; Officer Expenses; Meals & Entertainment Expense; Employee Relocation Expense; Lobbying Expense; Lease Expenses; Non-Operating Cost Adjustment; Current & Deferred Income Taxes</p>
KCPL-GMO MPS & L&P Electric	ER-2009-0090	<p style="text-align: center;">March 2009</p> <p>Cost of Service Report- Pensions & OPEBS; Miscellaneous Adjustments; SJLP Merger Transition Costs; Employee Relocation Expense; Lease Expenses; Current & Deferred Income Taxes</p> <p>Lead Auditor</p>
KCPL-GMO L&P Steam	HR-2009-0092	<p style="text-align: center;">March 2009</p> <p>Cost of Service Report- Pensions & OPEBS; Miscellaneous Adjustments; Current & Deferred Income Taxes</p> <p>Lead Auditor</p>
Missouri American Water Company	WR-2008-0311	<p style="text-align: center;">October 2008</p> <p>Surrebuttal- Belleville Lab Allocations; Compensation for Services MAWC Provided to AWR</p> <p>Litigated- Corporate Allocations</p> <p>True-Up - Corporate Allocations; Income & Deferred Taxes</p> <p>Lead Auditor</p>
Missouri American Water Company	WR-2008-0311	<p style="text-align: center;">August 2008</p> <p>Cost of Service Report- Case Reconciliation; Corporate Allocations & Expenses; Belleville Lab Allocations; Compensation for Services MAWC Provided to AWR; Current & Deferred Income Taxes</p> <p>Lead Auditor</p>

COMPANY	CASE NO.	TESTIMONY/ISSUES
Laclede Gas Company		In Progress Investigation of Affiliated Transactions, Corporate Allocations & Appropriate Time Charges Between Laclede's Regulated & Unregulated Subsidiaries
Missouri Gas Utility	GR-2008-0060	February 2008 Cost of Service Report- Revenue Requirement Run (EMS) Merger & Acquisition Costs (Start-Up Costs); Corporate Allocations; Current & Deferred Income Taxes Lead Auditor
Missouri Gas Energy	GU-2007-0480	July 2008 Rebuttal- AAO Manufactured Gas Plant Litigated- Manufactured Gas Plant Lead Auditor
Missouri Gas Energy	GU-2007-0480	September 2007 Memorandum – AAO Manufactured Gas Plant Lead Auditor
Laclede Gas Company	GR-2007-0208	May 2007 Direct – Affiliated Operations; HVAC & Home Sale Inspection; Injuries & Damages; Insurance; 401 (k) Expenses; Pensions & OPEBS; Non-Qualified Pension Plan Expenses; Current & Deferred Income Taxes True-UP – Current & Deferred Income Taxes
Missouri Gas Energy	GR-2006-0422	November 2006 Rebuttal- Environmental Response Fund, Manufactured Gas Plant Litigated- Manufactured Gas Plant
Missouri Gas Energy	GR-2006-0422	October 2006 Direct– Revenues; Purchased Gas Adjustments; Bad Debt Expense; ECWR AAO Bad Debt: Rent; Pensions & OPEBS; Income Taxes; Franchise Taxes; Manufactured Gas Plant, and Case Reconciliation Litigated- Emergency Cold Weather Rule True-Up - Revenues; Bad Debt Expense; Pensions & OPEBS; Income Taxes

COMPANY	CASE NO.	TESTIMONY/ISSUES
The Empire Electric Company	ER-2006-0315	July 2006 Rebuttal- Storm Damage Tracker
The Empire Electric Company	ER-2006-0315	June 2006 Direct- Tree Trimming Expense and Construction Over-Run Costs
Missouri Pipeline & Missouri Gas Company LLC	GC-2006-0378	November 2006 Plant in Service, Depreciation Reserve, Depreciation Expense, Transactions & Acquisition Costs and Current & Deferred Income Taxes
New Florence Telephone	TC-2006-0184	October 2006 Plant in Service; Depreciation Reserve; Depreciation Expense; Plant Overage; and Materials & Supplies
Cass County Telephone	TC-2005-0357	July 2006 Plant in Service; Depreciation Reserve; Depreciation Expense; Plant Overage; Plant Held for Future Use and Missouri Universal Service Fund
Cass County Telephone & New Florence Telephone Fraud Investigation Case	TO-2005-0237	May 2006 Fraud Investigation case involving Cass County Telephone and New Florence Telephone
Missouri Gas Energy	GR-2004-0209	June 2004 Surrebuttal - Revenues and Bad Debt Expense True-Up - Revenues; Bad Debt Expense; Current & Deferred Income Taxes
Missouri Gas Energy	GR-2004-0209	May 2004 Rebuttal - Revenues; Bad Debt Expense; and Manufactured Gas Plant Litigated- Manufactured Gas Plant
Missouri Gas Energy	GR-2004-0209	April 2004 Direct -- Revenues; Purchased Gas Adjustments; Bad Debt Expense; Medical Expense; Rents; Incentive Compensation and Current & Deferred Income Taxes

COMPANY	CASE NO.	TESTIMONY/ISSUES
Union Electric Company d/b/a AmerenUE (Gas)	GR-2003-0517	<p style="text-align: center;">October 2003</p> Direct – Corporate Allocations; UEC Missouri Gas Allocations; CILCORP Allocations; Rent Expense; Maintenance of General Plant Expense; Lease Agreements; and Employee Relocation Expense
Union Electric Company d/b/a AmerenUE (Electric)	EC-2002-1	<p style="text-align: center;">June 2002</p> Surrebuttal - Coal Inventory; Venice Power Plant Fire; Tree Trimming Expense; and Automated Meter Reading Service
Laclede Gas Company	GR-2002-356	<p style="text-align: center;">June 2002</p> Direct - Payroll; Payroll Taxes; 401k Pension Plan; Health Care Expenses; Pension Plan Trustee Fees; Incentive Compensation and Clearing Account: True- Up – Payroll; Payroll Taxes; and Clearing Accounts
Union Electric Company d/b/a AmerenUE (2 nd period, 3 rd EARP) (Electric)	EC-2002-1025	<p style="text-align: center;">April 2002</p> Direct - Revenue Requirement Run; Plant in Service; Depreciation Reserve; Other Rate Base items; Venice Power Plant Fire expenditures; Tree Trimming Expense; and Coal Inventory
2 nd Complaint Case, Union Electric Company d/b/a AmerenUE (Electric) New Test Year ordered by the Commission.	EC-2002-1	<p style="text-align: center;">March 2002</p> Direct - Materials and Supplies; Prepayments; Fuel Inventory; Customer Advances for Construction; Customer Deposits; Plant in Service; Depreciation Reserve; Venice Power Plant Fire Expenditures; Tree-Trimming Expense; Automated Meter Reading Expense; Customer Deposit Interest Expense; Year 2000 Computer Modification Expense; Regulatory Advisor’s Consulting Fees; and Property Taxes Deposition – April 11, 2002
1 st Complaint Case, Union Electric Company d/b/a AmerenUE (Electric)	EC-2002-1	<p style="text-align: center;">July 2001</p> Direct - Materials and Supplies; Prepayments; Fuel Inventory; Customer Advances for Construction; Customer Deposits; Plant in Service; Depreciation Reserve; Power Plant Maintenance Expense; Tree-Trimming Expense; Automated Meter Reading Expense; Customer Deposit Interest Expense; Year 2000 Computer Modification Expense; Computer Software Expense; Regulatory Advisor’s Consulting Fees; Board of Directors Advisor’s Fees and Property Taxes. Deposition – November 27 2001

COMPANY	CASE NO	TESTIMONY/ISSUES
Union Electric Company d/b/a AmerenUE (2 nd period, 2 nd EARP) (Electric)	EC-2001-431	February 2001 Coal Inventory
Union Electric Company d/b/a AmerenUE (Gas)	GR-2000-512	August 2000 Direct - Cash Working Capital; Advertising Expense; Missouri PSC Assessment; Dues and Donations; Automated Meter Reading Expenses; Computer System Software Expenses (CSS); Computer System Software Expenses (Y2K); Computer System Software Expenses (EMPRV); Generation Strategy Project Expenses; Regulatory Advisor's Consulting fees and Board of Directors Advisor's fees.
SUMMARY OF INFORMAL CASES		
Missouri American Water Company & Roark Water Acquisition Case	WO-2011-0213 SO-2011-0214	March 2011 Memorandum-- Plant in Service; Depreciation Reserve; Other Rate Base Items including CIAC Lead Auditor
Tri-State Water Company	WR-2011-0037	March 2011 Cost of Service; Rate Case Expense; Medical; Insurance; Communications Expense; Transportation Expense; Office Expense; Miscellaneous maintenance expenses; Rate Base and Current & Deferred Income Taxes Lead Auditor
Raytown Water Company	WR-2010-0304	February 2011 Cost of Service; Affiliated Transactions; Tank Painting; Hydrant Maintenance; City Permit Fees; EIERA Insurance Costs; I&D & Workers Comp; CIAC; Board of Directors Fees; DNR Fees; Education Expense; Software & IT Expenses; Office Expense & Lease Equipment; Franchise Taxes; Current & Deferred Income Taxes Lead Auditor
Noel Water Company	WR-2009-0395	August 2009 Cost of Service; All Revenues & Expenses related to Noel Water Company; Plant in Service; Depreciation Reserve & other Rate Base Items. Lead Auditor

COMPANY	CASE NO.	TESTIMONY/ISSUES
Tri-State Water Company	WR-2009-0058	<p>May 2008 Cost of Service; Payroll; rent expense; miscellaneous maintenance expenses; Rate Base and Current & Deferred Income Taxes.</p> <p>Lead Auditor</p>
Big Island Water & Sewer	WA-2006-0480 SA-2006-0482	<p>January 2007 Direct - Certificate of Necessitate Application Case: Cost of Service; All Revenues & Expenses related to Big Island Water & Sewer; Plant in Service; Depreciation Reserve & other Rate Base Items.</p> <p>Lead Auditor</p>
Aqua Missouri Water and Sewer	QS-2005-0008 QW-2005-009 QS-2005-0010 QW-2005-0011	<p>October 2006 All Revenues & Expenses related to Aqua MO Water & Sewer; Plant in Service; Depreciation Reserve & other Rate Base Items.</p> <p>Lead Auditor</p>
Lake Region Water and Sewer Certificate Case	WA-2005-0463	<p>October 2006 Certificate of Necessitate Application Case</p> <p>Lead Auditor</p>
Tri-State Utility Inc.	WA-2006-0241	<p>May 2006 Certificate of Necessitate Application Case</p> <p>Lead Auditor</p>
Osage Water Company Environmental Utilities Missouri American Water	WO-2005-0086	<p>February 2005 Rate Base; Cost of Service; Income Statement Items; Pre-Post Sale of OWC, Sale of EU Assets to MAWC</p>
North Suburban Water & Sewer	WF-2005-0164	<p>December 2004 Sale of All Stocks of Lake Region Water & Sewer to North Suburban Water & Sewer, Value of Rate Base Assets, Acquisition Premium</p> <p>Lead Auditor</p>
Mill Creek Sewer	SR-2005-0116	<p>December 2004 Cost of Service; All Revenues & Expenses related to Mill Creek Sewer; Plant in Service; Depreciation Reserve & other Rate Base Items.</p> <p>Lead Auditor</p>

COMPANY	CASE NO	TESTIMONY/ISSUES
Roark Water and Sewer	WR-2005-0153 SR-2005-0154	September 2004 Cost of Service; All Revenues & Expenses related to Roark Water & Sewer; Plant in Service; Depreciation Reserve & other Rate Base Items. Lead Auditor
Osage Water Company	WT-2003-0583 SR-2003-0584	December 2003 Cost of Service; All Revenues & Expenses related to Osage Water; Plant in Service; Depreciation Reserve & other Rate Base Items
SUMMARY OF NON-CASE RELATED AUDITS		
January 2006 – Environmental Utilities and Osage Water Company Audit Concerning Provision of Service to Eagle Woods Subdivision and Disconnect Notice		
November 2004 - Internal Audit of Public Service Commission (PSC) Fixed Assets, Physical Inventory Control Process and Location of Assets		

J. Kay Niemeier

Education

December 2002 Master's Degree in Business Administration
Lincoln University, Jefferson City, MO

May 1997 Bachelor of Science Degree in Business Administration
Lincoln University, Jefferson City, MO

Professional Experience

Missouri Public Service Commission
Jefferson City, MO

December 1997 through June 2000 Utility Management Analyst I/II

June 2000 through present Utility Management Analyst III

Credentials/Case Participation of by J. Kay Niemeier

Date	Company	Project	File with Case Number
1998	AmerenUE	Review of Customer Service Operations	
May 2, 2000	UtiliCorp United Inc. and St. Joseph Light & Power	Rebuttal Testimony	EM-2000-292
July 2, 2002	Aqua Source/RU	Customer Service Operations Review	QW-2003-0001
May 2002	Atmos Energy Corporation	Customer Service and Gas Supply Operations	
2002	Warren County Water & Sewer Company	Customer Service Operations Review	
June 14, 2002		Staff Report on Restoration Efforts Following Major Ice Storm in Late January of 2002	
September 2003	Aquila, Inc.	Rebuttal Testimony	EF-2003-465
2003	Gladlo Water and Sewer, Inc.	Customer Service Operations Review	
December 2003	Laclede Gas Company	Customer Service and Gas Supply Operations	
2003	Raytown Water Company	Review of Customer Service Operations	
2004	Cass County Telephone Company	Universal Service Funds Report	
2004	New Florence Telephone Company	Universal Service Funds Report	
2004	Raytown Water Company	Staff Recommendation for Approval of Revised Tariff, Depreciation Rates and Agreements Regarding Disposition of Small Company Rate Increase Request	
October 2005	Aquila, Inc.	Customer Service Processes and Operations	

Credentials/Case Participation of by J. Kay Niemeier

Date	Company	Project	File with Case Number
2005	Cass County Telephone Company and New Florence Telephone Company	Investigation of the Fiscal and Operational Reliability of Cass County Telephone Co. and New Florence Telephone Co., and Related Matters of Illegal Activity	TO-2005-0237
2005	Mark Twain Telephone Rural Telephone Company	Universal Service Funds Report	
2005	Ozark Telephone Company	Universal Service Funds Report	
October 31, 2006	Aquila, Inc.	Management Audit	EO-2006-0356
April 2006	Cass County Telephone Company	Staff Recommendation	TM-2006-0306
2006	Mid-Missouri Telephone Company	Universal Service Funds Report	
2006	MoKan Dial, Inc.	Universal Service Funds Report	
2006	Moore Bend Water Company	Business Operations Review	
2006	New Florence Telephone Company	Staff's Recommendation Concerning Application for Approval of Stock Purchase	TO-2007-0139
2006	Steelville Telephone Exchange	Universal Service Funds Report	
2006	Taneycomo Highlands, Inc. Sewer Company	Customer Service Operations Review	
October 2007	Aqua Missouri, Inc.	Business Operations Review	WR-2008-0266, SR-2008-0267, SR-2008-0268 and WR-2008-0269
2007	CenturyTel of Missouri LLC-ILEC	Universal Service Funds Report	

Credentials/Case Participation of by J. Kay Niemeier

Date	Company	Project	File with Case Number
2007	S.K.&M. Water & Sewer Company	Customer Service and Business Operations Review	QW-2007-0006 & QS-2007-0007
2008	Craw-Kan Telephone Company	Universal Service Funds Report	
2008	Green Hills Telephone Company (CLEC)	Universal Service Funds Report	
2008	Green Hills Telephone Company (ILEC)	Universal Service Funds Report	
2008	Kansas City Power & Light Company	Final Report of Storm Restoration Efforts	EO-2008-0219
2008	Le-Ru Telephone Company (ILEC)	Universal Service Funds Report	
2008	Spokane Highlands Water Company	Business Operations Review	QW-2008-0003
2009	Chariton Valley Telephone Company	Universal Service Funds Report	
2009	Hickory Hills Water & Sewer Company	Business Operations Review	WR-2009-0151 and SR-2009-0154
2009	Missouri Utilities Company	Business Operations Review	WR-2009-0150 and SR-2009-0153
2009	Northwest Missouri Cellular Company	Universal Service Funds Report	
2009	Osage Water Company	Business Operations Review	WR-2009-0149 and SR-2009-0152
2009	Raytown Water Company	Business Operations Review	WR-2009-0098
2009	U.S. Cellular Telephone Company	Universal Service Funds Report	
2010	Aqua MO	Business Operations Review	WR-2010-0025, SR-2010-0023, WR-2010-0027 and SR-2010-0026
2010	Aqua MO	Recommendation Regarding Aqua Missouri, Inc.'s Tariff Sheets	SC-2010-0150

Credentials/Case Participation of by J. Kay Niemeier

Date	Company	Project	File with Case Number
2010	Farber Telephone Company	Universal Service Funds Report	
2010	Kingdom Telephone Company	Universal Service Funds Report	
2010	New London Telephone Company	Universal Service Funds Report	
2010	Orchard Farm Telephone Company	Universal Service Funds Report	
2010	Peace Valley Telephone Company	Universal Service Funds Report	
2010	Stockton Hills Water Company	Business Operations Review	WR-2010-0202
2010	Stoutland Telephone Company	Universal Service Funds Report	
2010	TDS Telephone Company	Universal Service Funds Report	
2011	Goodman Telephone Company, Inc.	Universal Service Funds Report	
2011	Grand River Telephone	Universal Service Funds Report	
2011	Lathrop Telephone Company	Universal Service Funds Report	
2011	McDonald County Telephone Company	Universal Service Funds Report	
2011	Seneca Telephone Company	Universal Service Funds Report	

Educational and Employment Background and Credentials

Of

Arthur W. Rice, PE

I am currently employed as a Utility Regulatory Engineer I for the Missouri Public Service Commission (Commission). I was employed by the Commission in April of 2008. Currently a Staff Expert on Utility Company Regulatory Depreciation for water, sewer, gas distribution, and electrical companies.

I received a Bachelors of Science in Chemical Engineering from the University of Massachusetts in 1979. I am a licensed professional engineer in the state of Missouri, license No 028012.

From 1998 to 2008 worked as a self employed business owner. I established Arthur Rice Contracting LLC and developed a residential subdivision on 270 Acres in Callaway County Missouri. I obtained the appropriate permits, installed infrastructure and built residential homes. Thirty seven families have moved into the development resulting in approximately \$8,000,000 added to the Callaway County property tax base. I continue to be the President of the Homeowner's association, operate the subdivision sewer company, and maintain the subdivision roads.

From 1979 to 1998 I was employed by Monsanto Company and then Air Products and Chemicals as an engineer and project manager in an industrial equipment manufacture and sales division. I was assigned progressively responsible assignments in equipment and process development, plant operations and plant construction. The processes revolved around manufacturing, installation and operation of gas separation equipment for oil refineries, chemical plants and natural gas processing.

From 1972 to 1977 I was employed by General Electric Company as a tool and die maker apprentice. The facility I worked at produced power, distribution and pole transformers, plus electrical switch gear, surge arrestors and electrical connectors.

From 1966 to 1972 I was trained and employed by the U.S. Navy as a nuclear propulsion plant operator, plant water chemist, and radiological controls specialist. Qualified in submarines and served 3 ½ years on a nuclear submarine. I served the last six months of my tour of duty as an engine room supervisor on a large ammunitions transport ship which was powered by oil fired boilers.

To: Concerned parties

Subject: Filed Testimony Record of Arthur W. Rice, PE

Date: November 14, 2011

Mr. Rice has filed the following testimony at the Missouri Public Service Commission related to depreciation.

Case ER-2010-0036, AmerenUE

1. Direct testimony as part of the Staff Cost of Service report on 12/08/2010
2. Rebuttal testimony on 2/11/2010
3. Surrebuttal testimony on 3/05/2010

Case ER-2010-0355, Kansas City Power and Light Company

1. Direct testimony as part of the Staff Cost of Service report on 11/10/2010
2. Rebuttal testimony on 12/08/2010
3. Surrebuttal testimony on 1/05/2011

Case ER-2010-0356, KCPL Greater Missouri Operations Company

1. Direct testimony as part of the Staff Cost of Service report on 11/17/2010
2. Rebuttal testimony on 12/15/2010
3. Surrebuttal testimony on 1/12/2011

*Arthur Rice, PE,
Engineering & Management Services
Missouri Public Service Commission
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Jefferson City, MO 65102
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(573) 526-2722
(573) 526-0145 (fax)*

**CASE PARTICIPATION of
Arthur W. Rice, PE**

Case/Tracking Number	Company Name - Issue
SR-2008-0388	WPC Sewer, Depreciation Review
SR-2008-0389	West 16Th Street, Depreciation Review
WA-2008-0403	Seges Mobile Home Park, Depreciation Assignment
WR-2009-0098	Raytown Water Company, Depreciation Review
SR-2009-0144	Cannon Home Assoc. Depreciation Review
WR-2009-0145	Peaceful Valley Service Co., Depreciation Review
SR-2009-0146	Peaceful Valley Service Co., Depreciation Review
WR-2009-0218	Terre Du Lac Utilities Corp., Depreciation Review
SR-2009-0219	Terre Du Lac Utilities Corp., Depreciation Review
WR-2009-0227	Lakeland Heights Water, Depreciation Review
WR-2009-0228	Wispering Hills Water, Depreciation Review
WR-2009-0229	Oakbrier Water Company, Depreciation Review
SR-2009-0226	R. D. Sewer Company, Depreciation Review
GA-2009-0264	Missouri Gas Utilities, Depreciation Assignment
WA-2009-0316	Highway H Utilities, Depreciation Assignment
SA-2009-0317	Highway H Utilities, Depreciation Assignment
SA-2009-0319	Mid Mo Sanitation LLC, Depreciation Assignment
SR-2009-0298	Port Perry Service Company, Depreciation Review
WR-2009-0299	Port Perry Service Company, Depreciation Review
SA-2009-0401	Seges Mobile Home Park, Depreciation Assignment
SR-2009-0392	Highway H Utilities, Depreciation Review
WR2009-0393	Highway H Utilities, Depreciation Review
WR-2009-0418	Gladlo Water and Sewer, Depreciation Review
SR-2009-0419	Gladlo Water and Sewer, Depreciation Review
WR-2009-0395	Noel Water Co., Depreciation Review
ER-2010-0036	AmerenUE, Staff Expert for Depreciation
SR-2010-0095	Mid Mo Sanitation LLC, Depreciation Review
WR-2010-0139	Valley Woods Water Company, Depreciation Review
SR-2010-0140	Valley Woods Water Co., Depreciation Review
WA-2010-0281	Holtgrewe Farms Water, Depreciation Assignment
SA-2010-0282	Holtgrewe Farms Sewer, Depreciation Assignment
WR-2010-0304	Raytown Water Company, Depreciation Review
WR-2010-0309	Middlefork Water, Depreciation Review
ER-2010-0355	KCP&L, Staff Expert for Depreciation
ER-2010-0356	KCP&L - GMO, Staff Expert for Depreciation

Jerry Scheible, P.E.

Education

Bachelor of Science Degree in Agricultural Engineering
University of Missouri – Columbia, 1995

Associate of Arts Degree in General Studies
East Central College – Union, MO 1991

Courses toward a Masters Degree in Public Administration
University of Missouri – Columbia

Professional Experience

Utility Regulatory Engineer, Water and Sewer Unit - Missouri Public Service Commission,
Regulatory Review Division, Utility Operations Department (October 2001 – Present)

Environmental Engineer II, Water Pollution Control Program --
Missouri Department of Natural Resources - Land Application Unit (May 2001 – October 2001)

Environmental Engineer II, Water Pollution Control Program – Missouri Department of Natural
Resources - State Revolving Fund Unit (February 1998 – May 2001)

Environmental Engineer I & II, Water Pollution Control Program – Missouri Department of
Natural Resources - Concentrated Animal Feeding Operations (October 1994 - February 1998)

Farm Manager/Custom Cabinet Design and Construction - (May 1987-August 1995)

Professional Certification

Registered Professional Engineer in the State of Missouri
Registration Number: 2001018805

Missouri Department of Natural Resources Public Drinking Water Program
Drinking Water Treatment- Certification Level D

Missouri Department of Natural Resources Clean Water Commission
Wastewater Treatment- Certification Level D

Previous Testimony Before the Commission

Case Number WC-2007-0303: Plant Capacity - Evidentiary Hearing/Live Testimony
Case Number WC-2006-0248: Billing Complaint - Evidentiary Hearing/Live Testimony
Case Number WC-2008-0311: Customer Water Usage Normalization- Written Testimony
Case Number WR-2010-0131: Customer Water Usage Normalization- Written Testimony

Case Participation Summary for

Jerry Scheible, P.E.

Previous Testimony Before the Commission

Case Number WC-2007-0303: Plant Capacity - Evidentiary Hearing/Live Testimony

Case Number WC-2006-0248: Billing Complaint - Evidentiary Hearing/Live Testimony

Case Number WC-2008-0311: Customer Water Usage Normalization-
Rebuttal Written Testimony
Surrebuttal Written Testimony

Case Number WR-2010-0131: Customer Water Usage Normalization-
Rebuttal Written Testimony
Surrebuttal Written Testimony

Casey Westhues

Educational and Employment Background and Credentials

I am currently employed with the Missouri Public Service Commission as a Utility Regulatory Auditor II. I accepted this position in January 2009.

I graduated from Missouri State University located in Springfield, MO with my Masters Degree in Accounting in December 2009. Prior to obtaining my Masters degree, I earned my Bachelors of Science degree in Accounting from William Woods University located in Fulton, MO.

While working for the Commission I have participated in the Empire District Electric case no. ER-2010-0130, Raytown Water Company case no. WR-2010-0304, Whiteside Hidden Acres case no. WR-2011-0024, the Empire District Electric case no. ER-2011-0004, and Missouri American Water Company case no. WR-2011-0337 and SR-2011-0338. In the chart below is a list of issues that I sponsored in each case and any rebuttal or surrebuttal testimony that I have filed.

Case Name	Case Number	Testimony Type/Issues
Empire District Electric	ER-2010-0130	Direct -Outside Services, Materials and Supplies, Customer Deposits, Customer Advances, Prepayments, Rate Case Expense, Dues and Donations, Advertising, Cash Working Capital, Insurance, Worker's Compensation, EEI Dues, Property Taxes, Postage, PSC Assessment, Injuries and Damages, Plant in Service Rebuttal -Rate Case Expense Surrebuttal -Rate Case Expense, Dues and Donations, EEI Dues

Case Name	Case Number	Testimony Type/Issues
Raytown Water	WR-2010-0304	Materials and Supplies, Dues and Donations, Advertising, Payroll, Payroll Taxes, Property Taxes, Postage, Plant in Service
Whiteside Hidden Acres	WR-2011-0024	Direct -All revenues and expenses related to Whiteside Hidden Acres; Plant in Service; Depreciation Reserve and other Rate Base Items
Empire District Electric Company	ER-2011-0004	Direct -Outside Services, Materials and Supplies, Customer Deposits, Customer Advances, Prepayments, Rate Case Expense, Dues and Donations, Advertising, Cash Working Capital, Insurance, Worker's Compensation, EEI Dues, Property Taxes, Postage, PSC Assessment, Injuries and Damages, Payroll, Payroll Taxes, Incentive Compensation, Employee Benefits
Missouri American Water Company	WR-2011-0337 and SR-2011-0338	Direct -Insurance, CWC, Employee Benefits, Incentive Compensation, Advertising, Dues and Donations, Leases, Payroll, Payroll Taxes, Promotional Items, Main Break Expense, and Injuries and Damages

MISSOURI PUBLIC SERVICE COMMISSION

**STAFF REPORT
COST OF SERVICE**

**APPENDIX 2
Support for Staff Cost
of
Capital Recommendations**

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2011-0337

The DCF model is a market-oriented approach for deriving the cost of common equity. The cost of common equity calculated from the DCF model is inherently capable of attracting capital. This results from the theory that security prices adjust continually over time, so that an equilibrium price exists and the stock is neither undervalued nor overvalued. It can also be stated that stock prices continually fluctuate to reflect the required and expected return for the investor.

The constant-growth form of the DCF model was used in this analysis. This model relies upon the fact that a company's common stock price is dependent upon the expected cash dividends and upon cash flows received through capital gains or losses that result from stock price changes. The interest rate which discounts the sum of the future expected cash flows to the current market price of the common stock is the calculated cost of common equity. This can be expressed algebraically as:

$$\text{Present Price} = \frac{\text{Expected Dividends}}{\text{Discounted by } k} + \frac{\text{Expected Price in 1 year}}{\text{Discounted by } k} \quad (1)$$

where k equals the cost of equity. Since the expected price of a stock in one year is equal to the present price multiplied by one plus the growth rate, equation (1) can be restated as:

$$\text{Present Price} = \frac{\text{Expected Dividends}}{(1 + k)} + \frac{\text{Present Price } (1+g)}{(1 + k)} \quad (2)$$

where g equals the growth rate and k equals the cost of equity. Letting the present price equal P_0 and expected dividends equal D_1 , the equation appears as:

$$P_0 = \frac{D_1}{(1 + k)} + \frac{P_0(1+g)}{(1 + k)} \quad (3)$$

The cost of equity equation may also be algebraically represented as:

$$k = \frac{D_1}{P_0} + g \quad (4)$$

Thus, the cost of common stock equity, k , is equal to the expected dividend yield (D_1/P_0) plus the expected growth in dividends (g) continuously summed into the future. The growth in dividends and implied growth in earnings will be reflected in the current price. Therefore, this model also recognizes the potential of capital gains or losses associated with owning a share of common stock.

The discounted cash flow method is a continuous stock valuation model. The DCF theory is based on the following assumptions:

1. Market equilibrium;
2. Perpetual life of the company;
3. Constant payout ratio;
4. Payout of less than 100% earnings;
5. Constant price/earnings ratio;
6. Constant growth in cash dividends;
7. Stability in interest rates over time;
8. Stability in required rates of return over time; and
9. Stability in earned returns over time.

Flowing from these, it is further assumed that an investor's growth horizon is unlimited and that earnings, book values and market prices grow hand-in-hand. Although the entire list of the above assumptions is rarely met, the DCF model is a reasonable working model describing an actual investor's expectations and resulting behaviors.

The CAPM describes the relationship between a security's investment risk and its market rate of return. This relationship identifies the rate of return which investors expect a security to earn so that its market return is comparable with the market returns earned by other securities that have similar risk. The general form of the CAPM is as follows:

$$k = R_f + \beta (R_m - R_f)$$

where:

- k = the expected return on equity for a specific security;
- R_f = the risk-free rate;
- β = beta; and
- $R_m - R_f$ = the market risk premium.

The first term of the CAPM is the risk-free rate (R_f). The risk-free rate reflects the level of return that can be achieved without accepting any risk. In reality, there is no such risk-free asset, but it is generally represented by U.S. Treasury securities.

The second term of the CAPM is beta (β). Beta is an indicator of a security's investment risk. It represents the relative movement and relative risk between a particular security and the market as a whole (where beta for the market equals 1.00). Securities with betas greater than 1.00 exhibit greater volatility than do securities with betas less than 1.00. This causes a higher beta security to be less desirable to a risk-averse investor and therefore requires a higher return in order to attract investor capital away from a lower beta security.

The final term of the CAPM is the market risk premium ($R_m - R_f$). The market risk premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk-free investment.

AN ANALYSIS OF THE COST OF CAPITAL

FOR

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2011-0337

SCHEDULES

BY

MATTHEW J. BARNES

REGULATORY REVIEW DIVISION

Utility Operations Department

MISSOURI PUBLIC SERVICE COMMISSION

NOVEMBER 2011

Missouri-American Water Company
Case No. WR-2011-0337

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**Missouri-American Water Company
Case No. WR-2011-0337**

Federal Reserve Discount Rate Changes and Federal Reserve Funds Rate Changes

Date	Discount Rate (%)	Federal Reserve Funds Rate (%)	Date	Discount Rate (%)	Federal Reserve Funds Rate (%)
12/31/83	8.50%		08/24/99	4.75%	5.25%
04/09/84	9.00%		11/16/99	5.00%	5.50%
11/21/1984	8.50%		02/02/00	5.25%	5.75%
12/24/1984	8.00%		03/21/00	5.50%	6.00%
05/20/85	7.50%		05/19/00	6.00%	6.50%
03/07/86	7.00%		01/03/01	5.75%	6.00%
04/21/86	6.50%		01/04/01	5.50%	6.00%
07/11/86	6.00%		01/31/01	5.00%	5.50%
08/21/86	5.50%		03/20/01	4.50%	5.00%
09/04/87	6.00%		04/18/01	4.00%	4.50%
08/09/88	6.50%		05/15/01	3.50%	4.00%
02/24/89	7.00%		06/27/01	3.25%	3.75%
07/13/90	7.00%	8.00% *	08/21/01	3.00%	3.50%
10/29/90	7.00%	7.75%	09/17/01	2.50%	3.00%
11/13/90	7.00%	7.50%	10/02/01	2.00%	2.50%
12/07/90	7.00%	7.25%	11/06/01	1.50%	2.00%
12/18/90	7.00%	7.00%	12/11/01	1.25%	1.75%
12/19/90	6.50%	7.00%	11/06/02	0.75%	1.25%
01/09/91	6.50%	6.75%	01/09/03	2.25%	1.25% **
02/01/91	6.00%	6.25%	06/25/03	2.00%	1.00%
03/08/91	6.00%	6.00%	06/30/04	2.25%	1.25%
04/30/91	5.50%	5.75%	08/10/04	2.50%	1.50%
08/06/91	5.50%	5.50%	09/21/04	2.75%	1.75%
09/13/91	5.00%	5.25%	11/10/04	3.00%	2.00%
10/31/91	5.00%	5.00%	12/14/04	3.25%	2.25%
11/06/91	4.50%	4.75%	02/02/05	3.50%	2.50%
12/06/91	4.50%	4.50%	03/22/05	3.75%	2.75%
12/20/91	3.50%	4.00%	05/03/05	4.00%	3.00%
04/09/92	3.50%	3.75%	06/30/05	4.25%	3.25%
07/02/92	3.00%	3.25%	08/09/05	4.50%	3.50%
09/04/92	3.00%	3.00%	09/20/05	4.75%	3.75%
01/01/93	3.00%	3.00%	11/01/05	5.00%	4.00%
12/31/93	3.00%	3.00%	12/13/05	5.25%	4.25%
02/04/94	3.00%	3.25%	01/31/06	5.50%	4.50%
03/22/94	3.00%	3.50%	03/28/06	5.75%	4.75%
04/18/94	3.00%	3.75%	05/10/06	6.00%	5.00%
05/17/94	3.50%	4.25%	06/29/06	6.25%	5.25%
08/16/94	4.00%	4.75%	08/17/07	5.75%	5.25%
11/15/94	4.75%	5.50%	09/18/07	5.25%	4.75%
02/01/95	5.25%	6.00%	10/31/07	5.00%	4.50%
07/06/95	5.25%	5.75%	12/11/07	4.75%	4.25%
12/19/95	5.25%	5.50%	01/22/08	4.00%	3.50%
01/31/96	5.00%	5.25%	01/30/08	3.50%	3.00%
03/25/97	5.00%	5.50%	03/16/08	3.25%	3.00%
12/12/97	5.00%	5.50%	03/18/08	2.50%	2.25%
01/09/98	5.00%	5.50%	04/30/08	2.25%	2.00%
03/06/98	5.00%	5.50%	10/08/08	1.75%	1.50%
09/29/98	5.00%	5.25%	10/28/08	1.25%	1.00%
10/15/98	4.75%	5.00%	12/30/08	0.50%	0.25%
11/17/98	4.50%	4.75%	02/19/09	0.75%	0.25%
06/30/99	4.50%	5.00%	12/31/10	0.75%	0.25%

* Staff began tracking the Federal Funds Rate.

** Revised discount window program begins. Reflects rate on primary credit. This revised discount window policy results in incomparability of the discount rates after January 9, 2003 to discount rates before January 9, 2003.

Source:

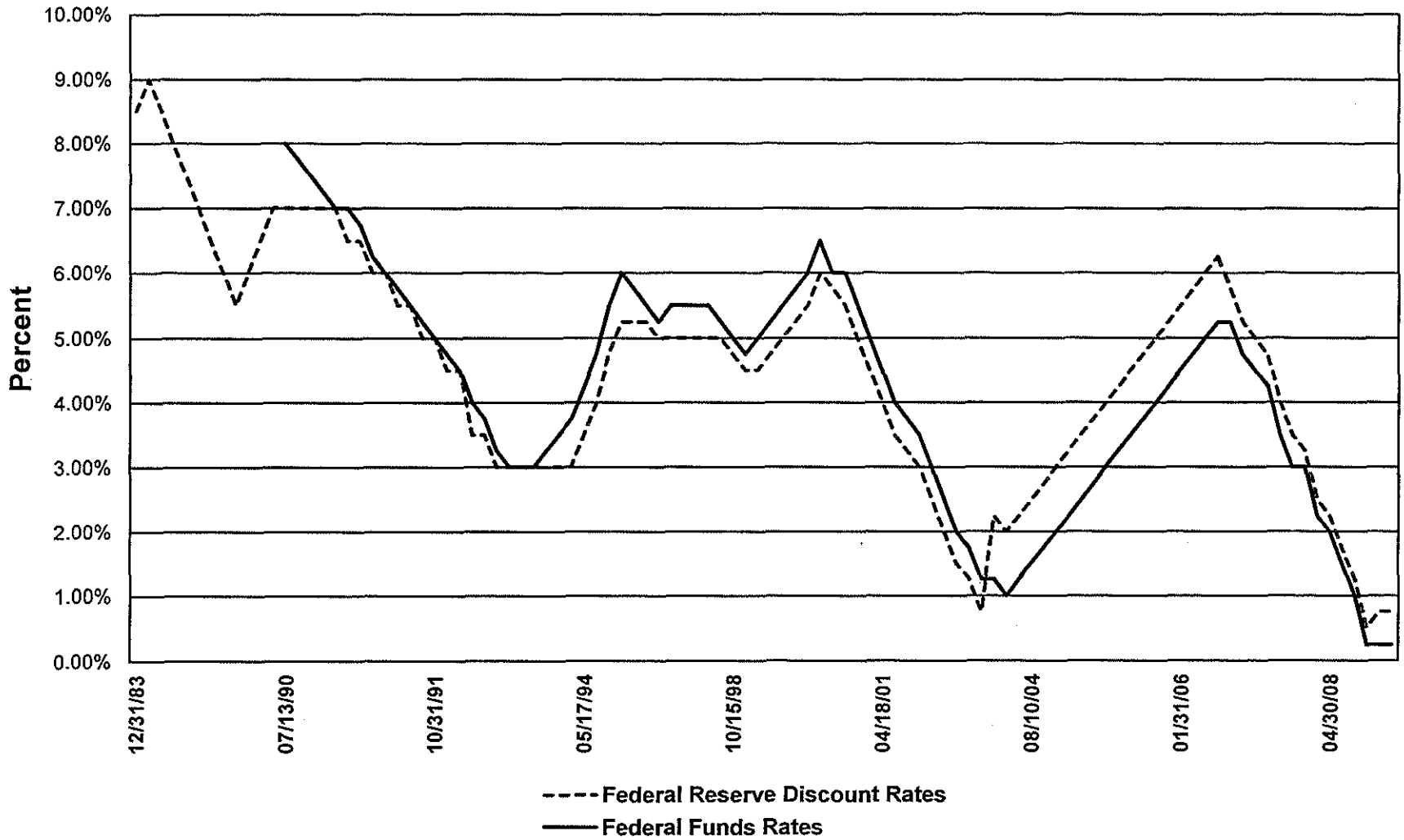
Federal Reserve Discount rate <http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html>

Federal Reserve Funds rate <http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html>

Note: Interest rates as of December 31 for each year are underlined.

Missouri-American Water Company
Case No. WR-2011-0337

**Federal Reserve Discount Rates and Federal Funds Rates
1982 - 2011**



**Missouri-American Water Company
Case No. WR-2011-0337**

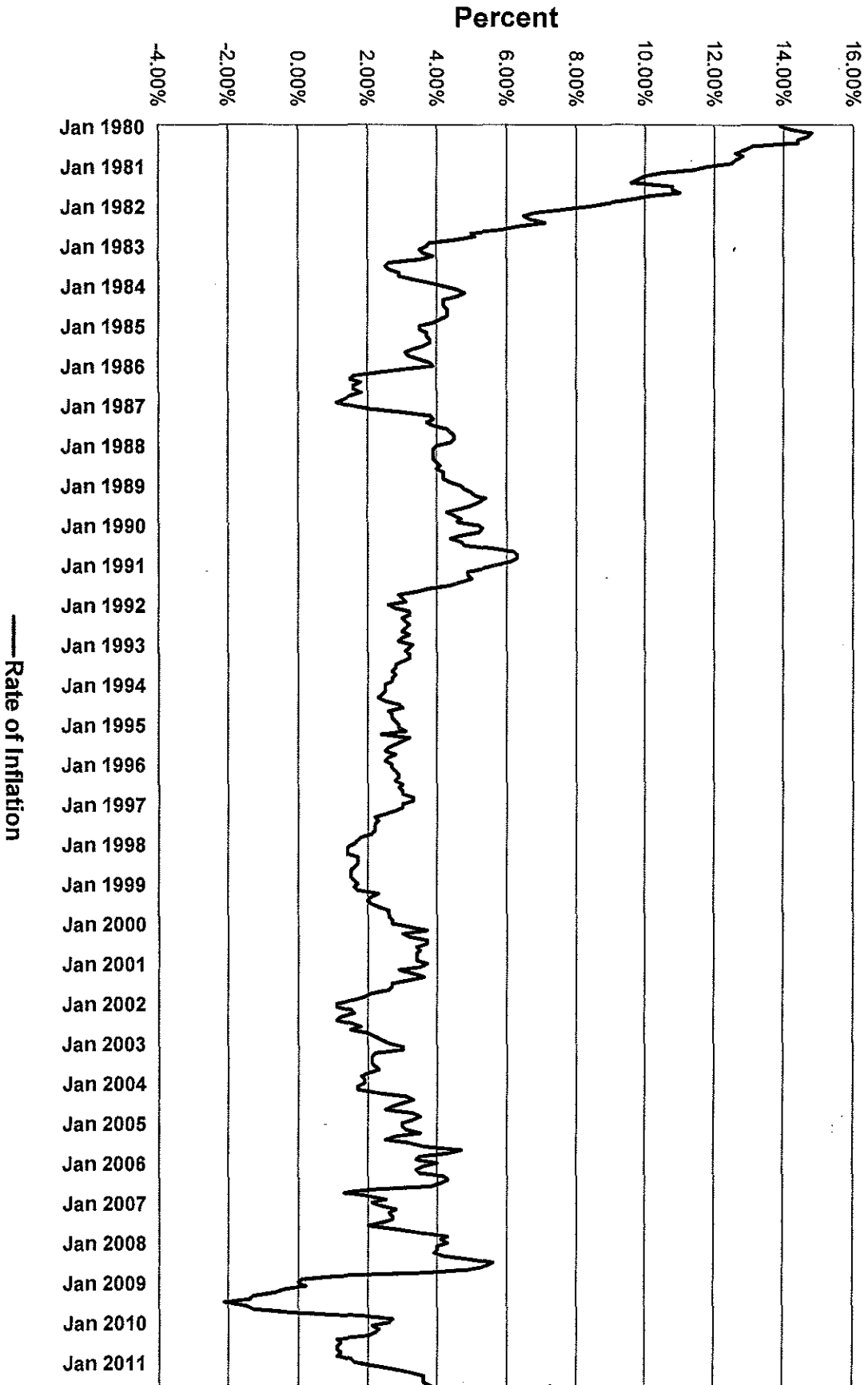
Rate of Inflation

Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate
Jan 1980	13.90%	Jan 1984	4.20%	Jan 1988	4.00%	Jan 1992	2.60%	Jan 1996	2.70%	Jan 2000	2.70%	Jan 2004	1.90%	Jan 2008	4.30%
Feb	14.20%	Feb	4.60%	Feb	3.90%	Feb	2.80%	Feb	2.70%	Feb	3.20%	Feb	1.70%	Feb	4.00%
Mar	14.80%	Mar	4.80%	Mar	3.90%	Mar	3.20%	Mar	2.80%	Mar	3.70%	Mar	1.70%	Mar	4.00%
Apr	14.70%	Apr	4.60%	Apr	3.90%	Apr	3.20%	Apr	2.90%	Apr	3.00%	Apr	2.30%	Apr	3.90%
May	14.40%	May	4.20%	May	3.90%	May	3.00%	May	2.90%	May	3.20%	May	3.10%	May	4.20%
Jun	14.40%	Jun	4.20%	Jun	4.00%	Jun	3.10%	Jun	2.80%	Jun	3.70%	Jun	3.30%	Jun	5.00%
Jul	13.10%	Jul	4.20%	Jul	4.10%	Jul	3.20%	Jul	3.00%	Jul	3.70%	Jul	3.00%	Jul	5.60%
Aug	12.90%	Aug	4.30%	Aug	4.00%	Aug	3.10%	Aug	2.90%	Aug	3.40%	Aug	2.70%	Aug	5.40%
Sep	12.60%	Sep	4.30%	Sep	4.20%	Sep	3.00%	Sep	3.00%	Sep	3.50%	Sep	2.50%	Sep	4.90%
Oct	12.80%	Oct	4.30%	Oct	4.20%	Oct	3.20%	Oct	3.00%	Oct	3.40%	Oct	3.30%	Oct	3.70%
Nov	12.60%	Nov	4.10%	Nov	4.20%	Nov	3.00%	Nov	3.30%	Nov	3.40%	Nov	3.50%	Nov	1.10%
Dec	12.50%	Dec	3.90%	Dec	4.40%	Dec	2.90%	Dec	3.30%	Dec	3.40%	Dec	3.30%	Dec	0.10%
Jan 1981	11.80%	Jan 1985	3.50%	Jan 1989	4.70%	Jan 1993	3.30%	Jan 1997	3.00%	Jan 2001	3.70%	Jan 2005	3.00%	Jan 2009	0.00%
Feb	11.40%	Feb	3.50%	Feb	4.80%	Feb	3.20%	Feb	3.00%	Feb	3.50%	Feb	3.00%	Feb	0.20%
Mar	10.50%	Mar	3.70%	Mar	5.00%	Mar	3.10%	Mar	2.80%	Mar	2.90%	Mar	3.10%	Mar	-0.40%
Apr	10.00%	Apr	3.70%	Apr	5.10%	Apr	3.20%	Apr	2.50%	Apr	3.30%	Apr	3.50%	Apr	-0.70%
May	9.80%	May	3.80%	May	5.40%	May	3.20%	May	2.20%	May	3.60%	May	2.80%	May	-1.28%
Jun	9.60%	Jun	3.80%	Jun	5.20%	Jun	3.00%	Jun	2.30%	Jun	3.20%	Jun	2.50%	Jun	-1.40%
Jul	10.80%	Jul	3.60%	Jul	5.00%	Jul	2.80%	Jul	2.20%	Jul	2.70%	Jul	3.20%	Jul	-2.10%
Aug	10.80%	Aug	3.30%	Aug	4.70%	Aug	2.80%	Aug	2.20%	Aug	2.70%	Aug	3.60%	Aug	-1.50%
Sep	11.00%	Sep	3.10%	Sep	4.30%	Sep	2.70%	Sep	2.20%	Sep	2.60%	Sep	4.70%	Sep	-1.30%
Oct	10.10%	Oct	3.20%	Oct	4.50%	Oct	2.80%	Oct	2.10%	Oct	2.10%	Oct	4.30%	Oct	-0.20%
Nov	9.60%	Nov	3.50%	Nov	4.70%	Nov	2.70%	Nov	1.80%	Nov	1.90%	Nov	3.50%	Nov	1.80%
Dec	8.90%	Dec	3.80%	Dec	4.60%	Dec	2.70%	Dec	1.70%	Dec	1.60%	Dec	3.40%	Dec	2.70%
Jan 1982	8.40%	Jan 1986	3.90%	Jan 1990	5.20%	Jan 1994	2.50%	Jan 1998	1.60%	Jan 2002	1.10%	Jan 2006	4.00%	Jan 2010	2.60%
Feb	7.60%	Feb	3.10%	Feb	5.30%	Feb	2.50%	Feb	1.40%	Feb	1.10%	Feb	3.60%	Feb	2.10%
Mar	6.80%	Mar	2.30%	Mar	5.20%	Mar	2.50%	Mar	1.40%	Mar	1.50%	Mar	3.40%	Mar	2.30%
Apr	6.50%	Apr	1.60%	Apr	4.70%	Apr	2.40%	Apr	1.40%	Apr	1.60%	Apr	3.50%	Apr	2.20%
May	6.70%	May	1.50%	May	4.40%	May	2.30%	May	1.70%	May	1.20%	May	4.20%	May	2.00%
Jun	7.10%	Jun	1.80%	Jun	4.70%	Jun	2.50%	Jun	1.70%	Jun	1.10%	Jun	4.30%	Jun	1.10%
Jul	6.40%	Jul	1.60%	Jul	4.80%	Jul	2.90%	Jul	1.70%	Jul	1.50%	Jul	4.10%	Jul	1.20%
Aug	5.90%	Aug	1.60%	Aug	5.60%	Aug	3.00%	Aug	1.60%	Aug	1.80%	Aug	3.80%	Aug	1.10%
Sep	5.00%	Sep	1.80%	Sep	6.20%	Sep	2.60%	Sep	1.50%	Sep	1.50%	Sep	2.10%	Sep	1.10%
Oct	5.10%	Oct	1.50%	Oct	6.30%	Oct	2.70%	Oct	1.50%	Oct	2.00%	Oct	1.30%	Oct	1.20%
Nov	4.60%	Nov	1.30%	Nov	6.30%	Nov	2.70%	Nov	1.50%	Nov	2.20%	Nov	2.00%	Nov	1.10%
Dec	3.80%	Dec	1.10%	Dec	6.10%	Dec	2.80%	Dec	1.60%	Dec	2.40%	Dec	2.50%	Dec	1.50%
Jan 1983	3.70%	Jan 1987	1.50%	Jan 1991	5.70%	Jan 1995	2.90%	Jan 1999	1.70%	Jan 2003	2.60%	Jan 2007	2.10%	Jan 2011	1.60%
Feb	3.50%	Feb	2.10%	Feb	5.30%	Feb	2.90%	Feb	1.60%	Feb	3.00%	Feb	2.40%	Feb	2.10%
Mar	3.60%	Mar	3.00%	Mar	4.90%	Mar	3.10%	Mar	1.70%	Mar	3.00%	Mar	2.80%	Mar	2.70%
Apr	3.90%	Apr	3.80%	Apr	4.90%	Apr	2.40%	Apr	2.30%	Apr	2.20%	Apr	2.60%	Apr	3.20%
May	3.50%	May	3.90%	May	5.00%	May	3.20%	May	2.10%	May	2.10%	May	2.70%	May	3.60%
Jun	2.60%	Jun	3.70%	Jun	4.70%	Jun	3.00%	Jun	2.00%	Jun	2.10%	Jun	2.70%	Jun	3.60%
Jul	2.50%	Jul	3.90%	Jul	4.40%	Jul	2.80%	Jul	2.10%	Jul	2.10%	Jul	2.40%	Jul	3.60%
Aug	2.60%	Aug	4.30%	Aug	3.80%	Aug	2.60%	Aug	2.30%	Aug	2.20%	Aug	2.00%	Aug	3.80%
Sep	2.90%	Sep	4.40%	Sep	3.40%	Sep	2.50%	Sep	2.60%	Sep	2.30%	Sep	2.80%	Sep	
Oct	2.90%	Oct	4.50%	Oct	2.90%	Oct	2.80%	Oct	2.60%	Oct	2.00%	Oct	3.50%	Oct	
Nov	3.30%	Nov	4.50%	Nov	3.00%	Nov	2.60%	Nov	2.60%	Nov	1.80%	Nov	4.30%	Nov	
Dec	3.80%	Dec	4.40%	Dec	3.10%	Dec	2.50%	Dec	2.70%	Dec	1.90%	Dec	4.10%	Dec	

Source: U.S. Dept of Labor, Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers,
Change for 12-Month Period, Bureau of Labor Statistics,
http://www.bls.gov/schedule/archives/cpi_nr.htm

Missouri-American Water Company
Case No. WR-2011-0337

Rate of Inflation
1980-2011



Missouri-American Water Company
Case No. WR-2011-0337
Average Yields on Mergent's Public Utility Bonds

Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate
Jan 1980	12.20%	Jan 1984	13.40%	Jan 1988	10.75%	Jan 1992	8.67%	Jan 1996	7.20%	Jan 2000	8.22%	Jan 2004	6.23%	Jan 2008	6.08%
Feb	13.48%	Feb	13.50%	Feb	10.11%	Feb	8.77%	Feb	7.37%	Feb	8.10%	Feb	6.17%	Feb	6.28%
Mar	14.33%	Mar	14.03%	Mar	10.11%	Mar	8.84%	Mar	7.72%	Mar	8.14%	Mar	6.01%	Mar	6.29%
Apr	13.50%	Apr	14.03%	Apr	10.53%	Apr	8.79%	Apr	7.88%	Apr	8.14%	Apr	6.38%	Apr	6.36%
May	12.17%	May	14.95%	May	10.75%	May	8.72%	May	7.99%	May	8.55%	May	6.68%	May	6.38%
Jun	11.87%	Jun	15.16%	Jun	10.71%	Jun	8.64%	Jun	8.07%	Jun	8.22%	Jun	6.53%	Jun	6.50%
Jul	12.12%	Jul	14.92%	Jul	10.96%	Jul	8.46%	Jul	8.02%	Jul	8.17%	Jul	6.34%	Jul	6.50%
Aug	12.82%	Aug	14.29%	Aug	11.09%	Aug	8.34%	Aug	7.84%	Aug	8.05%	Aug	6.18%	Aug	6.48%
Sep	13.29%	Sep	14.04%	Sep	10.56%	Sep	8.32%	Sep	8.01%	Sep	8.16%	Sep	6.01%	Sep	6.59%
Oct	13.53%	Oct	13.68%	Oct	9.92%	Oct	8.44%	Oct	7.76%	Oct	8.08%	Oct	5.95%	Oct	7.70%
Nov	14.07%	Nov	13.15%	Nov	9.89%	Nov	8.53%	Nov	7.48%	Nov	8.03%	Nov	5.97%	Nov	7.80%
Dec	14.48%	Dec	12.96%	Dec	10.02%	Dec	8.36%	Dec	7.58%	Dec	7.79%	Dec	5.93%	Dec	6.87%
Jan 1981	14.22%	Jan 1985	12.88%	Jan 1989	10.02%	Jan 1993	8.23%	Jan 1997	7.79%	Jan 2001	7.76%	Jan 2005	5.80%	Jan 2009	6.77%
Feb	14.84%	Feb	13.00%	Feb	10.02%	Feb	8.00%	Feb	7.68%	Feb	7.69%	Feb	5.64%	Feb	6.72%
Mar	14.86%	Mar	13.66%	Mar	10.16%	Mar	7.85%	Mar	7.92%	Mar	7.59%	Mar	5.86%	Mar	6.82%
Apr	15.32%	Apr	13.42%	Apr	10.14%	Apr	7.76%	Apr	8.08%	Apr	7.81%	Apr	5.72%	Apr	6.90%
May	15.84%	May	12.89%	May	9.92%	May	7.78%	May	7.94%	May	7.88%	May	5.60%	May	6.83%
Jun	15.27%	Jun	11.91%	Jun	9.49%	Jun	7.68%	Jun	7.77%	Jun	7.75%	Jun	5.39%	June	6.54%
Jul	15.87%	Jul	11.88%	Jul	9.34%	Jul	7.53%	Jul	7.52%	Jul	7.71%	Jul	5.50%	July	6.15%
Aug	16.33%	Aug	11.93%	Aug	9.37%	Aug	7.21%	Aug	7.57%	Aug	7.57%	Aug	5.51%	Aug	5.80%
Sep	16.89%	Sep	11.95%	Sep	9.43%	Sep	7.01%	Sep	7.50%	Sep	7.73%	Sep	5.54%	Sep	5.60%
Oct	16.76%	Oct	11.84%	Oct	9.37%	Oct	6.99%	Oct	7.37%	Oct	7.64%	Oct	5.79%	Oct	5.64%
Nov	15.50%	Nov	11.33%	Nov	9.33%	Nov	7.30%	Nov	7.24%	Nov	7.61%	Nov	5.88%	Nov	5.71%
Dec	15.77%	Dec	10.82%	Dec	9.31%	Dec	7.33%	Dec	7.16%	Dec	7.86%	Dec	5.83%	Dec	5.86%
Jan 1982	16.73%	Jan 1986	10.66%	Jan 1990	9.44%	Jan 1994	7.31%	Jan 1998	7.03%	Jan 2002	7.69%	Jan 2006	5.77%	Jan 2010	5.83%
Feb	16.72%	Feb	10.16%	Feb	9.66%	Feb	7.44%	Feb	7.09%	Feb	7.62%	Feb	5.83%	Feb	5.94%
Mar	16.09%	Mar	9.33%	Mar	9.75%	Mar	7.83%	Mar	7.13%	Mar	7.83%	Mar	5.98%	Mar	5.90%
Apr	15.82%	Apr	9.02%	Apr	9.87%	Apr	8.20%	Apr	7.12%	Apr	7.74%	Apr	6.28%	Apr	5.87%
May	15.60%	May	9.52%	May	9.89%	May	8.32%	May	7.11%	May	7.76%	May	6.39%	May	5.59%
Jun	16.18%	Jun	9.51%	Jun	9.69%	Jun	8.31%	Jun	6.99%	Jun	7.67%	June	6.39%	Jun	5.62%
Jul	16.04%	Jul	9.19%	Jul	9.66%	Jul	8.47%	Jul	6.99%	Jul	7.54%	July	6.37%	Jul	5.41%
Aug	15.22%	Aug	9.15%	Aug	9.87%	Aug	8.41%	Aug	6.96%	Aug	7.34%	Aug	6.20%	Aug	5.10%
Sep	14.56%	Sep	9.42%	Sep	10.01%	Sep	8.65%	Sep	6.88%	Sep	7.23%	Sep	6.03%	Sep	5.10%
Oct	13.88%	Oct	9.39%	Oct	9.94%	Oct	8.88%	Oct	6.88%	Oct	7.43%	Oct	6.01%	Oct	5.20%
Nov	13.58%	Nov	9.15%	Nov	9.76%	Nov	9.00%	Nov	6.96%	Nov	7.31%	Nov	5.82%	Nov	5.45%
Dec	13.55%	Dec	8.96%	Dec	9.57%	Dec	8.79%	Dec	6.84%	Dec	7.20%	Dec	5.83%	Dec	5.64%
Jan 1983	13.46%	Jan 1987	8.77%	Jan 1991	9.56%	Jan 1995	8.77%	Jan 1999	6.87%	Jan 2003	7.13%	Jan 2007	5.96%	Jan 2011	5.64%
Feb	13.60%	Feb	8.81%	Feb	9.31%	Feb	8.56%	Feb	7.00%	Feb	6.92%	Feb	5.91%	Feb	5.73%
Mar	13.20%	Mar	8.75%	Mar	9.39%	Mar	8.41%	Mar	7.18%	Mar	6.80%	Mar	5.87%	Mar	5.62%
Apr	13.03%	Apr	9.30%	Apr	9.30%	Apr	8.30%	Apr	7.16%	Apr	6.68%	Apr	6.01%	Apr	5.62%
May	13.00%	May	9.82%	May	9.29%	May	7.93%	May	7.42%	May	6.35%	May	6.03%	May	5.38%
Jun	13.17%	Jun	9.87%	Jun	9.44%	Jun	7.62%	Jun	7.70%	Jun	6.21%	June	6.34%	Jun	6.06%
Jul	13.20%	Jul	10.01%	Jul	9.40%	Jul	7.73%	Jul	7.66%	Jul	6.54%	July	6.28%	Jul	6.11%
Aug	13.50%	Aug	10.33%	Aug	9.16%	Aug	7.86%	Aug	7.86%	Aug	6.78%	Aug	6.28%	Aug	5.76%
Sep	13.35%	Sep	11.00%	Sep	9.03%	Sep	7.62%	Sep	7.87%	Sep	6.58%	Sep	6.24%	Sep	5.52%
Oct	13.19%	Oct	11.32%	Oct	8.99%	Oct	7.46%	Oct	8.02%	Oct	6.50%	Oct	6.17%	Oct	
Nov	13.33%	Nov	10.82%	Nov	8.93%	Nov	7.40%	Nov	7.86%	Nov	6.44%	Nov	6.04%	Nov	
Dec	13.48%	Dec	10.99%	Dec	8.76%	Dec	7.21%	Dec	8.04%	Dec	6.36%	Dec	6.23%	Dec	

Source: Mergent Bond Record
www.bondsonline.com

Missouri-American Water Company
Case No. WR-2011-0337
Average Yields on Thirty-Year U.S. Treasury Bonds

Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate	Mo/Year	Rate
Jan 1980	10.60%	Jan 1984	11.75%	Jan 1988	8.83%	Jan 1992	7.58%	Jan 1996	6.05%	Jan 2000	6.63%	Jan 2004	4.99%	Jan 2008	4.33%
Feb	12.13%	Feb	11.95%	Feb	8.43%	Feb	7.85%	Feb	6.24%	Feb	6.23%	Feb	4.93%	Feb	4.52%
Mar	12.34%	Mar	12.38%	Mar	8.63%	Mar	7.97%	Mar	6.60%	Mar	6.05%	Mar	4.74%	Mar	4.39%
Apr	11.40%	Apr	12.65%	Apr	8.95%	Apr	7.96%	Apr	6.79%	Apr	5.85%	Apr	5.14%	Apr	4.44%
May	10.36%	May	13.43%	May	9.23%	May	7.89%	May	6.93%	May	6.15%	May	5.42%	May	4.60%
Jun	9.81%	Jun	13.44%	Jun	9.00%	Jun	7.84%	Jun	7.06%	Jun	5.93%	Jun	5.41%	Jun	4.69%
Jul	10.24%	Jul	13.21%	Jul	9.14%	Jul	7.60%	Jul	7.03%	Jul	5.85%	Jul	5.22%	Jul	4.57%
Aug	11.00%	Aug	12.54%	Aug	9.32%	Aug	7.39%	Aug	6.84%	Aug	5.72%	Aug	5.06%	Aug	4.50%
Sep	11.34%	Sep	12.29%	Sep	9.06%	Sep	7.34%	Sep	7.03%	Sep	5.83%	Sep	4.90%	Sep	4.27%
Oct	11.59%	Oct	11.98%	Oct	8.89%	Oct	7.53%	Oct	6.81%	Oct	5.80%	Oct	4.86%	Oct	4.17%
Nov	12.37%	Nov	11.56%	Nov	9.02%	Nov	7.61%	Nov	6.48%	Nov	5.78%	Nov	4.89%	Nov	4.00%
Dec	12.40%	Dec	11.52%	Dec	9.01%	Dec	7.44%	Dec	6.55%	Dec	5.49%	Dec	4.86%	Dec	2.87%
Jan 1981	12.14%	Jan 1985	11.45%	Jan 1989	8.93%	Jan 1993	7.34%	Jan 1997	6.83%	Jan 2001	5.54%	Jan 2005	4.73%	Jan 2009	3.13%
Feb	12.80%	Feb	11.47%	Feb	9.01%	Feb	7.09%	Feb	6.69%	Feb	5.45%	Feb	4.55%	Feb	3.59%
Mar	12.69%	Mar	11.81%	Mar	9.17%	Mar	6.82%	Mar	6.93%	Mar	5.34%	Mar	4.78%	Mar	3.64%
Apr	13.20%	Apr	11.47%	Apr	9.03%	Apr	6.85%	Apr	7.09%	Apr	5.65%	Apr	4.65%	Apr	3.76%
May	13.60%	May	11.05%	May	8.83%	May	6.92%	May	6.94%	May	5.78%	May	4.49%	May	4.23%
Jun	12.96%	Jun	10.44%	Jun	8.27%	Jun	6.81%	Jun	6.77%	Jun	5.67%	Jun	4.29%	June	4.52%
Jul	13.59%	Jul	10.50%	Jul	8.08%	Jul	6.63%	Jul	6.51%	Jul	5.61%	Jul	4.41%	July	4.41%
Aug	14.17%	Aug	10.56%	Aug	8.12%	Aug	6.32%	Aug	6.58%	Aug	5.48%	Aug	4.46%	August	4.37%
Sep	14.67%	Sep	10.61%	Sep	8.15%	Sep	6.00%	Sep	6.50%	Sep	5.48%	Sep	4.47%	Sept	4.19%
Oct	14.68%	Oct	10.50%	Oct	8.00%	Oct	5.94%	Oct	6.33%	Oct	5.32%	Oct	4.67%	Oct	4.19%
Nov	13.35%	Nov	10.06%	Nov	7.90%	Nov	6.21%	Nov	6.11%	Nov	5.12%	Nov	4.73%	Nov	4.31%
Dec	13.45%	Dec	9.54%	Dec	7.90%	Dec	6.25%	Dec	5.99%	Dec	5.48%	Dec	4.66%	Dec	4.49%
Jan 1982	14.22%	Jan 1986	9.40%	Jan 1990	8.26%	Jan 1994	6.29%	Jan 1998	5.81%	Jan 2002	5.44%	Jan 2006	4.59%	Jan 2010	4.60%
Feb	14.22%	Feb	8.93%	Feb	8.50%	Feb	6.49%	Feb	5.89%	Feb	5.39%	Feb	4.58%	Feb	4.62%
Mar	13.53%	Mar	7.96%	Mar	8.56%	Mar	6.91%	Mar	5.95%	Mar	5.71%	Mar	4.73%	Mar	4.65%
Apr	13.37%	Apr	7.39%	Apr	8.76%	Apr	7.27%	Apr	5.92%	Apr	5.67%	Apr	5.06%	Apr	4.69%
May	13.24%	May	7.52%	May	8.73%	May	7.41%	May	5.93%	May	5.64%	May	5.20%	May	4.28%
Jun	13.92%	Jun	7.57%	Jun	8.46%	Jun	7.40%	Jun	5.70%	Jun	5.52%	Jun	5.16%	Jun	4.13%
Jul	13.55%	Jul	7.27%	Jul	8.50%	Jul	7.58%	Jul	5.68%	Jul	5.38%	July	5.13%	Jul	3.99%
Aug	12.77%	Aug	7.33%	Aug	8.86%	Aug	7.49%	Aug	5.54%	Aug	5.08%	Aug	5.00%	Aug	3.81%
Sep	12.07%	Sep	7.62%	Sep	9.03%	Sep	7.71%	Sep	5.20%	Sep	4.49%	Sep	4.85%	Sep	3.77%
Oct	11.17%	Oct	7.70%	Oct	8.86%	Oct	7.94%	Oct	5.01%	Oct	4.93%	Oct	4.85%	Oct	3.87%
Nov	10.54%	Nov	7.52%	Nov	8.54%	Nov	8.08%	Nov	5.25%	Nov	4.95%	Nov	4.69%	Nov	4.19%
Dec	10.54%	Dec	7.37%	Dec	8.24%	Dec	7.87%	Dec	5.06%	Dec	4.92%	Dec	4.68%	Dec	4.42%
Jan 1983	10.63%	Jan 1987	7.39%	Jan 1991	8.27%	Jan 1995	7.85%	Jan 1999	5.16%	Jan 2003	4.94%	Jan 2007	4.85%	Jan 2011	4.52%
Feb	10.88%	Feb	7.54%	Feb	8.03%	Feb	7.61%	Feb	5.37%	Feb	4.81%	Feb	4.82%	Feb	4.65%
Mar	10.63%	Mar	7.55%	Mar	8.29%	Mar	7.45%	Mar	5.58%	Mar	4.80%	Mar	4.72%	Mar	4.52%
Apr	10.48%	Apr	8.25%	Apr	8.21%	Apr	7.36%	Apr	5.55%	Apr	4.90%	Apr	4.86%	Apr	4.50%
May	10.53%	May	8.78%	May	8.27%	May	6.95%	May	5.81%	May	4.53%	May	4.90%	May	4.29%
Jun	10.93%	Jun	8.57%	Jun	8.47%	Jun	6.57%	Jun	6.04%	Jun	4.37%	Jun	5.20%	Jun	4.23%
Jul	11.40%	Jul	8.64%	Jul	8.45%	Jul	6.72%	Jul	5.98%	Jul	4.93%	July	5.11%	Jul	4.27%
Aug	11.82%	Aug	8.97%	Aug	8.14%	Aug	6.86%	Aug	6.07%	Aug	5.30%	Aug	4.93%	Aug	3.64%
Sep	11.63%	Sep	9.59%	Sep	7.95%	Sep	6.55%	Sep	6.07%	Sep	5.14%	Sep	4.79%	Sep	3.18%
Oct	11.58%	Oct	9.61%	Oct	7.93%	Oct	6.37%	Oct	6.26%	Oct	5.16%	Oct	4.77%	Oct	
Nov	11.75%	Nov	8.95%	Nov	7.92%	Nov	6.26%	Nov	6.15%	Nov	5.13%	Nov	4.52%	Nov	
Dec	11.88%	Dec	9.12%	Dec	7.70%	Dec	6.06%	Dec	6.35%	Dec	5.08%	Dec	4.53%	Dec	

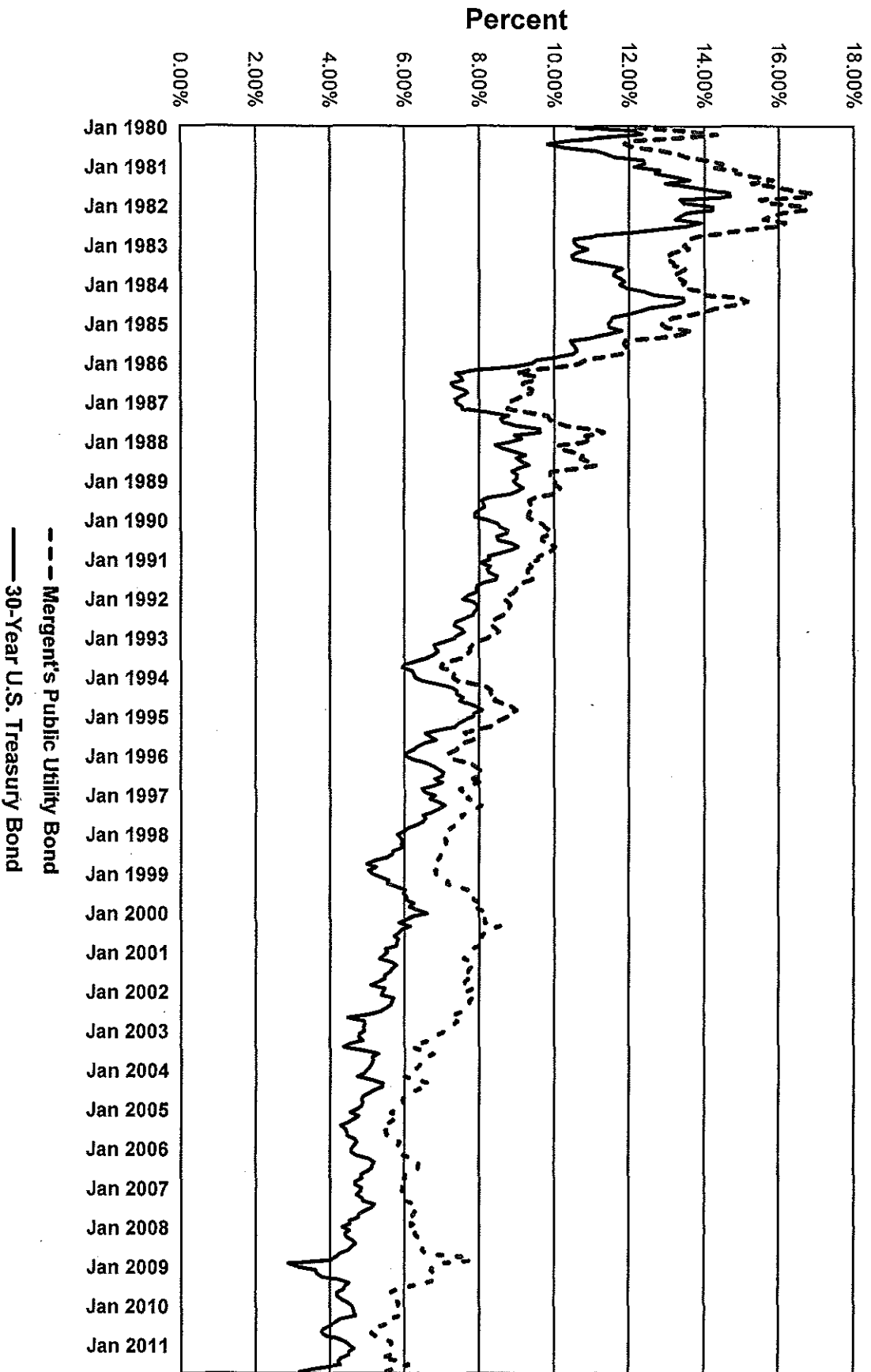
Sources:

<http://finance.yahoo.com/q/hp?s=^TYX>

<http://research.stlouisfed.org/fred2/data/GS30.txt>

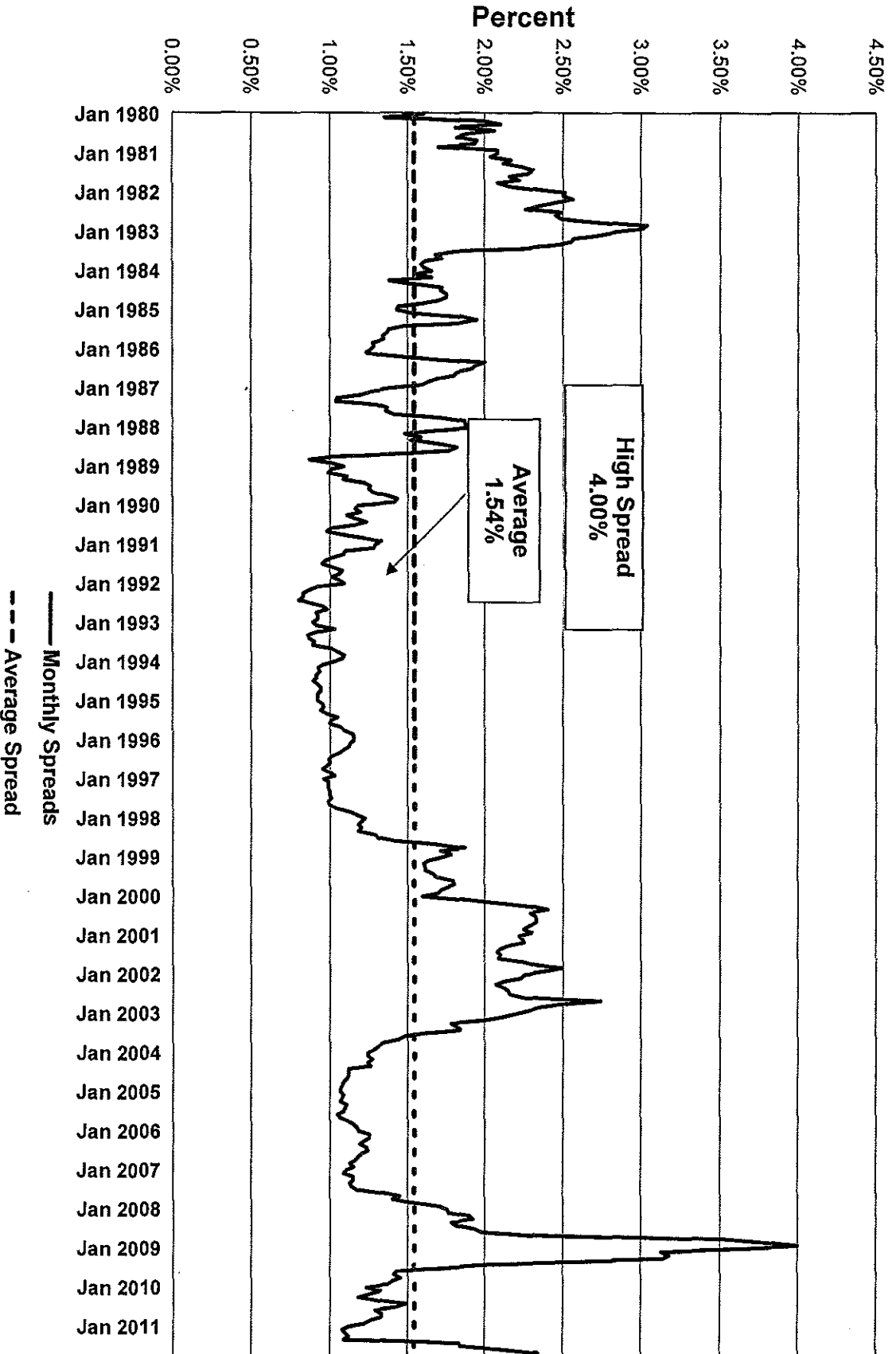
Missouri-American Water Company
Case No. WR-2011-0337

Average Yields on Mergent's Public Utility Bonds and Thirty-Year U.S. Treasury Bonds (1980-2011)

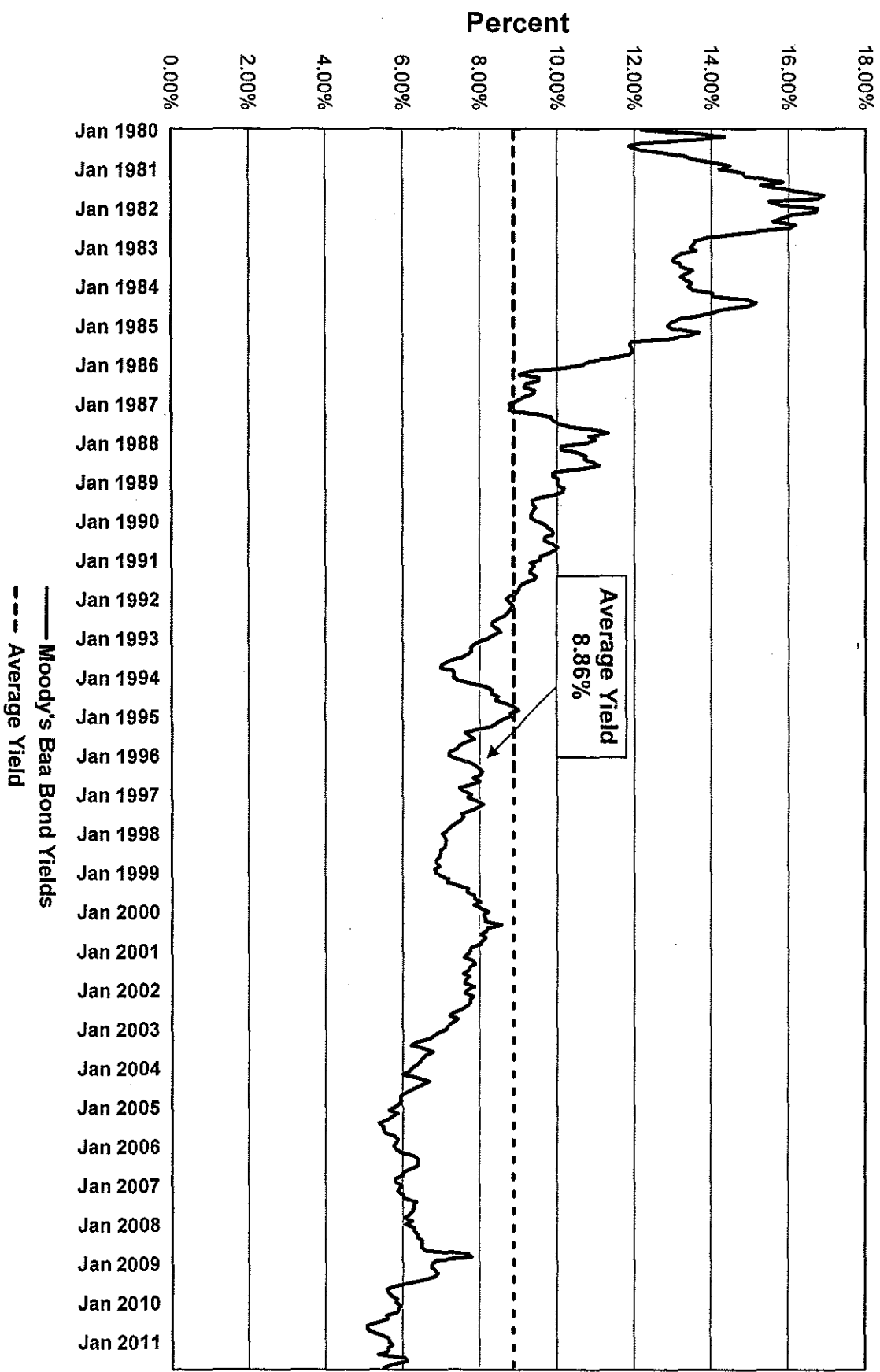


Missouri-American Water Company
Case No. WR-2011-0337

**Monthly Spreads Between Yields on Mergent's Public Utility Bonds and
 Thirty-Year U.S. Treasury Bonds (1980 - 2011)**



Missouri-American Water Company
 Case No. WR-2011-0337
**Moody's Baa Corporate
 Bond Yields 1980-2011**



**Missouri-American Water Company
Case No. WR-2011-0337**

Economic Estimates and Projections, 2011-2013

Source	Inflation Rate			Real GDP			Unemployment			3-Mo. T-Bill Rate			Long-Term T-Bond Rate		
	2011	2012	2013	2011	2012	2013	2011	2012	2013	2011	2012	2013	2011	2012	2013
Value Line Investment Survey – Selection & Opinion (08-26-11, page 2047)	3.10%	1.80%	2.00%	2.20%	1.30%	1.50%	9.10%	9.10%	8.50%	0.10%	0.10%	0.50%	4.50%	4.90%	5.00%
The Budget and Economic Outlook FY2011-2021 (August 24, 2011)	2.20%	1.40%	1.30%	2.40%	2.60%	1.70%	8.90%	8.70%	8.70%	0.10%	0.10%	0.20%	N/A	N/A	N/A
Current rate	3.80%			1.30%			9.10%			0.02%			3.02%		

Notes: N.A. = Not Available.

Sources of Current Rates:

- Inflation: The Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers, unadjusted 12-Month Period Ending, August 31, 2011 (see first paragraph).
http://www.bls.gov/schedule/archives/cpi_nr.htm
- GDP: U.S. Department of Commerce, Bureau of Economic Analysis. Percentage change for the Second Quarter 2011 (see first paragraph).
<http://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm>
- Unemployment: The Bureau of Labor Statistics, Economy Situation Summary - Unemployment Rate, September 2011.
<http://www.bls.gov/news.release/empsit.nr0.htm>
- 3-Month Treasury: St. Louis Federal Reserve website for September 30, 2011 (Weekly).
<http://research.stlouisfed.org/fred2/series/TB3MS/22>
- 30-Yr. T-Bond: St. Louis Federal Reserve website for September 30, 2011 (Weekly).
<http://research.stlouisfed.org/fred2/series/WGS30YR>
- Other Sources: ValueLine Investment Survey Selection & Opinion, August 26, 2011, page 2047.
The Congressional Budget Office, The Budget and Economic Outlook: Fiscal Years 2011-2021, August 24, 2011.
<http://www.cbo.gov/publications/bysubject.cfm?cat=0>

Missouri-American Water Company
Case No. WR-2011-0337

**Historical Consolidated Capital Structures for
American Water**
(Dollars in thousands)

Capital Components	2001	2002	2003	2004	2005
Common Equity	\$ 1,758,018.00	\$ 1,801,921.00	\$ 3,009,396.00	\$ 2,888,896.00	\$ 2,609,458.00
Preferred Stock	\$ 49,415.00 ^{2,3}	\$ 33,858.00 ^{2,3}	\$ 1,782,610.00 ^{2,3}	\$ 1,779,875.00 ^{2,3}	\$ 1,779,795.00 ^{2,3}
Long-Term Debt	\$ 2,716,106.00 ¹	\$ 3,668,589.00 ¹	\$ 3,822,885.00 ¹	\$ 3,952,172.00 ¹	\$ 4,366,629.00 ¹
	<u>\$ 4,523,539.00</u>	<u>\$ 5,504,368.00</u>	<u>\$ 8,614,891.00</u>	<u>\$ 8,620,943.00</u>	<u>\$ 8,755,882.00</u>
Capital Components	2006	2007	2008	2009	2010
Common Equity	\$ 2,613,696.00	\$ 4,542,046.00	\$ 4,102,001.00	\$ 4,000,859.00	\$ 4,127,725.00
Preferred Stock	\$ 1,779,088.00 ^{2,3}	\$ 28,864.00 ^{2,3}	\$ 28,707.00 ^{2,3}	\$ 28,503.00 ^{2,3}	\$ 27,818.00 ^{2,3}
Long-Term Debt	\$ 4,352,691.00 ¹	\$ 4,771,292.00 ¹	\$ 4,799,885.00 ¹	\$ 5,342,248.00 ¹	\$ 5,455,031.00 ¹
	<u>\$ 8,745,475.00</u>	<u>\$ 9,342,202.00</u>	<u>\$ 8,930,593.00</u>	<u>\$ 9,371,610.00</u>	<u>\$ 9,610,574.00</u>

**Historical Consolidated Capital Structures for
Missouri-American**
(Dollars in thousands)

Capital Components	2001	2002	2003	2004	2005
Common Equity	\$ 196,249.29	\$ 210,515.00	\$ 215,245.00	\$ 214,999.00	\$ 219,543.00
Preferred Stock	\$ 2,704.00	\$ 2,692.00	\$ 2,680.00	\$ 2,668.00	\$ 2,664.00
Long-Term Debt	\$ 234,146.40 ¹	\$ 290,130.00 ¹	\$ 290,005.00 ¹	\$ 289,985.00 ¹	\$ 284,245.00 ¹
Total	<u>\$ 433,099.69</u>	<u>\$ 503,337.00</u>	<u>\$ 507,930.00</u>	<u>\$ 507,652.00</u>	<u>\$ 506,452.00</u>
Capital Components	2006	2007	2008	2009	2010
Common Equity	\$ 222,961.63	\$ 298,926.00	\$ 336,785.00	\$ 377,129.00	\$ 413,149.89
Preferred Stock	\$ 2,704.00	\$ 2,620.00	\$ 2,620.00	\$ 2,608.00	\$ -
Long-Term Debt	\$ 286,901.00 ¹	\$ 316,037.00 ¹	\$ 385,870.00 ¹	\$ 410,156.00 ¹	\$ 411,610.00 ¹
Total	<u>\$ 512,566.63</u>	<u>\$ 617,583.00</u>	<u>\$ 725,275.00</u>	<u>\$ 789,893.00</u>	<u>\$ 824,759.89</u>

Notes:

- ¹ Includes current maturities on long-term debt.
- ² Includes redeemable preferred stock.
- ³ Includes current maturities on preferred stock.

Sources: Missouri-American Water Company's response to Staff Data Request Nos. 139.
Schedule 7-1 attached to Staff witness David Murray's direct testimony in Case No. WR-2007-0216.

**Missouri-American Water Company
Case No. WR-2011-0337**

**Historical Consolidated Capital Structures for
American Water
(Dollars in thousands)**

<u>Capital Components</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	
Common Equity	38.86%	32.74%	34.93%	33.51%	29.80%	
Preferred Stock	1.09% ^{2,3}	0.62% ^{2,3}	20.69% ^{2,3}	20.65% ^{2,3}	20.33% ^{2,3}	
Long-Term Debt	60.04% ¹	66.65% ¹	44.38% ¹	45.84% ¹	49.87% ¹	
	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	
<u>Capital Components</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>Average</u>
Common Equity	29.89%	48.62%	45.93%	42.69%	42.95%	37.99%
Preferred Stock	20.34% ^{2,3}	0.31% ^{2,3}	0.32% ^{2,3}	0.30% ^{2,3}	0.29% ^{2,3}	8.49%
Long-Term Debt	49.77% ¹	51.07% ¹	53.75% ¹	57.00% ¹	56.76% ¹	53.51%
	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

**Historical Consolidated Capital Structures for
Missouri-American
(Dollars in thousands)**

<u>Capital Components</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	
Common Equity	45.31%	41.82%	42.38%	42.35%	43.35%	
Preferred Stock	0.62%	0.53%	0.53%	0.53%	0.53%	
Long-Term Debt	54.06% ¹	57.64% ¹	57.10% ¹	57.12% ¹	56.12% ¹	
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	
<u>Capital Components</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>Average</u>
Common Equity	43.50%	48.40%	46.44%	47.74%	50.09%	45.14%
Preferred Stock	0.53%	0.42%	0.36%	0.33%	0.00%	0.44%
Long-Term Debt	55.97% ¹	51.17% ¹	53.20% ¹	51.93% ¹	49.91% ¹	54.42%
Total	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>	<u>100.00%</u>

Notes:

¹ Includes current maturities on long-term debt.

² Includes redeemable preferred stock.

³ Includes current maturities on preferred stock.

Sources: Missouri-American Water Company's response to Staff Data Request Nos. 139.

Schedule 1 attached to Staff witness David Murray's surrebuttal testimony in Case No. WR-2003-0500.

Missouri-American Water Company
Case No. WR-2011-0337

Capital Structure as of December 31, 2010
for American Water

Capital Component	Amount (in thousands)	Percentage of Capital
Common Stock Equity	\$ 4,127,725 ¹	42.95%
Preferred Stock	\$ 27,818 ²	0.29%
Long-Term Debt	\$ 5,455,031 ³	56.76%
Short-Term Debt	\$ - ⁴	0.00%
Total Capitalization	\$ 9,610,574	100.00%

Notes:

- ¹ Based on common equity shown on American Water's December 31, 2010 balance sheet.
- ² Based on total preferred stock shown on American Water's December 31, 2010 balance sheet less unamortized preferred stock expenses.
- ³ Based on total long-term debt shown on American Water's December 31, 2010 balance sheet less unamortized long-term debt expenses.
- ⁴ Staff did not include short-term debt because as of December 31, 2010 construction-work-in-progress exceeded short-term debt by \$85,865,000.

Source:

MAWC's response to Staff Data Request Nos. 0139.

**Missouri-American Water Company
Case No. WR-2011-0337**

**Embedded Cost of Preferred Stock as of December 31, 2010
for American Water
(Excluding Preferred Stock Held at American Water's Subsidiaries Besides MAWC)**

Total Annual Cost:	\$236,443	
Total Carrying Value:	\$2,567,336	
Embedded Cost = Total Annual Cost/Total Carrying Value		9.21%

Sources: Missouri-American Water Company's response to Staff's Data Request No. 0141.

**Missouri-American Water Company
Case No. WR-2011-0337**

Criteria for Selecting Comparable Water Utility Companies

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Water Utility Companies(Ticker)	Stock Publicly Traded	Information Printed in Value Line	5-Years of Data Available	At Least An Investment Grade Credit Rating from S&P	Projected Growth Rate Available from Value Line or Reuters	>75% of Revenues from Water Operations	Comparable Company Met All Criteria
American States Water Company (AWR)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
American Water Works Company (AWK)	Yes	Yes	No				
Aqua America Inc. (WTR)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Artesian Resources Corporation (ARTNA)	Yes	Yes	Yes	N.R.			
California Water Service Group (CWT)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Connecticut Water Service, Inc. (CTWS)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Middlesex Water Company (MSEX)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pennichuck Corporation (PNNW)	Yes	Yes	Yes	N.R.			
SJW Corporation (SJW)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
York Water Company (YORW)	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Sources:

- Columns 1 and 2 = Edward Jones Water Utility Industry Summary Quarterly Financial and Common Stock Information for June 30, 2011.
- Columns 3, 4 and 6 = The Value Line Investment Survey: Ratings & Reports, July 22, 2011.
- Column 5 = Standard & Poor's RatingsDirect.
- Column 6 = Reuters and The Value Line Investment Survey: Ratings & Reports, July 22, 2011.
- Column 7 = AUS Utility Reports, September 2011.

Notes: N.R.=Not Rated by Standard and Poor's

**Missouri-American Water Company
Case No. WR-2011-0337**

**Comparable Water Utility Companies
for Missouri-American Water Company**

Number	Ticker Symbol	Company Name
1	AWR	American States Water Company
2	WTR	Aqua America Inc.
3	CWT	California Water Service Group
4	CTWS	Connecticut Water Services Inc.
5	SJW	SJW Corporation
6	YORW	York Water Company

Note: Staff notes that Middlesex Water Company has been excluded from the comparable water utility companies as there is not a long-term projected growth rate from Value Line and the long-term projected growth rate from Reuters is a -5.00 percent rated by one analyst. Staff did not include a negative growth rate as Staff has not been able to contact the analyst from Reuters whom rates Middlesex Water Company to discover the reason for a negative growth rate.

Missouri-American Water Company
Case No. WR-2011-0337

**Ten-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates
for the Comparable Water Utility Companies**

	10-Year Annual Compound Growth Rates			
Company Name	DPS	EPS	BVPS	Average of 10-Year Annual Compound Growth Rates
American States Water Company	2.00%	4.50%	5.00%	3.83%
Aqua America Inc.	7.50%	6.50%	9.00%	7.67%
California Water Service Group	1.00%	3.00%	4.50%	2.83%
Connecticut Water Services Inc.	NA	NA	NA	NA
SJW Corporation	5.00%	2.00%	6.00%	4.33%
York Water Company	NA	NA	NA	NA
Average	3.88%	4.00%	6.13%	4.67%
Standard Deviation	2.56%	1.70%	1.75%	2.65%

Source: The Value Line Investment Survey, July 22, 2011.

NA = Not Available

**Missouri-American Water Company
Case No. WR-2011-0337**

**Five-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates
for the Comparable Water Utility Companies**

Company Name	5-Year Annual Compound Growth Rates			Average of 5-Year Annual Compound Growth Rates
	DPS	EPS	BVPS	
American States Water Company	2.50%	11.50%	5.00%	6.33%
Aqua America Inc.	8.00%	4.50%	7.00%	6.50%
California Water Service Group	1.00%	6.50%	5.50%	4.33%
Connecticut Water Service Inc.	1.50%	1.50%	3.00%	2.00%
SJW Corporation	5.50%	-1.50%	6.50%	3.50%
York Water Company	5.00%	5.00%	8.50%	6.17%
Average	3.92%	4.58%	5.92%	4.81%
Standard Deviation	2.47%	4.05%	1.72%	1.68%

Source: The Value Line Investment Survey, July 22, 2011.

Missouri-American Water Company
Case No. WR-2011-0337

**Average of Ten and Five-Year Dividends Per Share, Earnings Per Share &
 Book Value Per Share Growth Rates for the Comparable Water Utility Companies**

Company Name	10-Year Average DPS, EPS & BVPS	5-Year Average DPS, EPS & BVPS	Average of 5-Year & 10-Year Averages
American States Water Company	3.83%	6.33%	5.08%
Aqua America Inc.	7.67%	6.50%	7.08%
California Water Service Group	2.83%	4.33%	3.58%
Connecticut Water Service Inc.	NA	2.00%	2.00%
SJW Corporation	4.33%	3.50%	3.92%
York Water Company	NA	6.17%	6.17%
Average	<u><u>4.67%</u></u>	<u><u>4.81%</u></u>	<u><u>4.64%</u></u>

NA = Not Available

Missouri-American Water Company
Case No. WR-2011-0337

**Five-Year Projected Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates
for the Comparable Water Utility Companies**

	5-Year Projected Compound Growth Rates				
Company Name	DPS	EPS	BVPS	Average of 5-Year Annual Compound Growth Rates	
American States Water Company	4.00%	5.50%	2.00%	3.83%	
Aqua America Inc.	5.50%	10.50%	6.00%	7.33%	
California Water Service Group	3.00%	6.00%	3.50%	4.17%	
Connecticut Water Service Inc.	NA	NA	NA	NA	
SJW Corporation	3.50%	5.50%	5.50%	4.83%	
York Water Company	NA	NA	NA	NA	
Average	4.00%	6.88%	4.25%	5.04%	
Standard Deviation	0.94%	2.10%	1.60%	2.63%	

NA=Not Available

Source: The Value Line Investment Survey, July 22, 2011.

**Missouri-American Water Company
Case No. WR-2011-0337**

**Projected EPS Growth Rates
for the Comparable Water Utility Companies**

	(1)	(2)	(3)
Company Name	Projected 5-Year EPS Growth Reuters (Mean)	Projected 3-5 Year EPS Growth Value Line	Average Projected EPS Growth
American States Water Company	7.15%	5.50%	6.33%
Aqua America Inc.	7.25%	10.50%	8.88%
California Water Service Group	6.00%	6.00%	6.00%
Connecticut Water Service Inc.	8.00%	NA	8.00%
SJW Corporation	14.00%	5.50%	9.75%
York Water Company	6.00%	NA	6.00%
Average	<u><u>8.07%</u></u>	<u><u>6.88%</u></u>	<u><u>7.49%</u></u>
 Standard Deviation	 2.75%	 2.10%	 1.48%

NA=Not Available

Sources:

Column 1 = Analyst Estimates Accessed from Reuters on October 12, 2011.

Column 2 = The Value Line Investment Survey, July 22, 2011.

**Missouri-American Water Company
Case No. WR-2011-0337**

**Historical and Projected Growth Rates
for the Comparable Water Utility Companies**

	(1)	(2)	(3)	(4)	(5)
	Historical Growth Rate (DPS, EPS and BVPS)	Projected 5-Year EPS Growth Consensus Estimates (Mean)	Projected 3-5 Year EPS Growth Value Line	Average Projected EPS Growth	Average of Historical & Projected Growth
American States Water Company	5.08%	7.15%	5.50%	6.33%	5.70%
Aqua America Inc.	7.08%	7.25%	10.50%	8.88%	7.98%
California Water Service Group	3.58%	6.00%	6.00%	6.00%	4.79%
Connecticut Water Service Inc.	2.00%	8.00%	NA	8.00%	5.00%
SJW Corporation	3.92%	14.00%	5.50%	9.75%	6.83%
York Water Company	6.17%	6.00%	NA	6.00%	6.08%
Average	4.64%	8.07%	6.88%	7.49%	6.07%

Proposed Range of Growth for Comparables: 5.60%-6.60%

Column 4 = [(Column 2 + Column 3) / 2]

Column 5 = [(Column 1 + Column 4) / 2]

Sources:

Column 1 = Average of 10-Year and 5-Year Annual Compound Growth Rates from Schedule 12-3.

Column 2 = <http://www.reuters.com/finance/stocks/estimates>

Column 3 = The Value Line Investment Survey, July 22, 2011.

**Missouri-American Water Company
Case No. WR-2011-0337**

**Average High / Low Stock Price for July 2011 through September 2011
for the Comparable Water Utility Companies**

Company Name	(1) -- July 2011 --		(2) -- August 2011 --		(3) -- September 2011 --		(7) Average High/Low Stock Price (07/11 - 09/11)
	High Stock Price	Low Stock Price	High Stock Price	Low Stock Price	High Stock Price	Low Stock Price	
	American States Water Company	\$ 35.75	\$ 33.50	\$ 35.50	\$ 30.53	\$ 35.50	
Aqua America Inc.	\$ 22.74	\$ 20.87	\$ 22.48	\$ 19.28	\$ 22.35	\$ 20.41	\$ 21.36
California Water Service Group	\$ 19.37	\$ 18.18	\$ 18.92	\$ 16.65	\$ 18.99	\$ 16.81	\$ 18.15
Connecticut Water Service Inc.	\$ 26.55	\$ 25.07	\$ 28.15	\$ 25.11	\$ 26.87	\$ 24.77	\$ 26.09
SJW Corporation	\$ 24.91	\$ 22.76	\$ 24.16	\$ 20.89	\$ 23.60	\$ 20.87	\$ 22.87
York Water Company	\$ 17.94	\$ 16.45	\$ 18.14	\$ 16.02	\$ 17.89	\$ 16.00	\$ 17.07

Notes:

Column 7 = [(Column 1 + Column 2 + Column 3 + Column 4 + Column 5 + Column 6 / 6].

Source: <http://finance.yahoo.com>

**Missouri-American Water Company
Case No. WR-2011-0337**

**Constant-Growth Discounted Cash Flow (DCF) Estimated Costs of Common Equity
for the Comparable Water Utility Companies**

	(1)	(2)	(3)	(4)	(5)
Company Name	Expected Annual Dividend	Average High/Low Stock Price	Projected Dividend Yield	Average of Historical & Projected Growth	Estimated Cost of Common Equity
American States Water Company	\$1.18	\$33.830	3.49%	5.70%	9.19%
Aqua America Inc.	\$0.69	\$21.355	3.22%	7.98%	11.19%
California Water Service Group	\$0.65	\$18.153	3.60%	4.79%	8.39%
Connecticut Water Service Inc.	\$0.93 ¹	\$26.087	3.57%	5.00%	8.57%
SJW Corporation	\$0.75	\$22.865	3.28%	6.83%	10.11%
York Water Company	\$0.52 ²	\$17.073	3.05%	6.08%	9.13%
Average			<u><u>3.37%</u></u>	<u><u>6.07%</u></u>	<u><u>9.43%</u></u>

Proposed Dividend Yield: 3.37%

Proposed Range of Growth: 5.60% - 6.60%

Indicated Cost of Common Equity: 8.97% - 9.97%

Notes:

Column 1 = Average of 2011 through 2016 Estimated Dividends Declared per from Value Line.

Column 3 = (Column 1 / Column 2).

Column 5 = (Column 3 + Column 4).

Sources:

Column 1 = The Value Line Investment Survey: Ratings and Reports, July 22, 2011.

Column 2 = Schedule 16.

Column 4 = Schedule 15.

¹ Connecticut Water Service was calculated by taking the 2011 first quarter dividend times four.

² York Water Company was calculated by taking the 2011 first quarter dividend times four.

**Missouri-American Water Company
Case No. WR-2011-0337**

**Capital Asset Pricing Model (CAPM) Costs of Common Equity Estimates
Based on Historical Return Differences Between Common Stocks and Long-Term U.S. Treasuries
for the Comparable Water Utility Companies**

	(1)	(2)	(3)	(4)	(5)	(6)
Company Name	Risk Free Rate	Company's Value Line Beta	Arithmetic Average Market Risk Premium (1926-2010)	Geometric Average Market Risk Premium (1926-2010)	Arithmetic CAPM Cost of Common Equity (1926-2010)	Geometric CAPM Cost of Common Equity (1926-2010)
American States Water Company	3.04%	0.75	6.00%	4.40%	7.54%	6.34%
Aqua America Inc.	3.04%	0.65	6.00%	4.40%	6.94%	5.90%
California Water Service Group	3.04%	0.70	6.00%	4.40%	7.24%	6.12%
Connecticut Water Service Inc.	3.04%	0.80	6.00%	4.40%	7.84%	6.56%
SJW Corporation	3.04%	0.90	6.00%	4.40%	8.44%	7.00%
York Water Company	3.04%	0.70	6.00%	4.40%	7.24%	6.12%
Average		0.75			7.54%	6.34%

Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for September 2011 which was obtained from the St. Louis Federal Reserve website at <http://research.stlouisfed.org/fred2/series/GS30/22>.

Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole as reported by the Value Line Investment Survey: Ratings & Reports, July 22, 2011.

Column 3 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 - 2010 was determined to be 6.60% based on an arithmetic average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2010 Yearbook.

Column 4 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 - 2010 was determined to be 4.40% based on a geometric average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2010 Yearbook.

Column 5 = (Column 1 + (Column 2 * Column 3)).

Column 6 = (Column 1 + (Column 2 * Column 4)).

**Missouri-American Water Company
Case No. WR-2011-0337**

Selected Financial Ratios for the Comparable Water Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Company Name	2011 Estimated Common Equity Ratio	2011 Estimated Long-Term Debt Ratio	Funds From Operations Interest Coverage	Funds From Operations to Total Debt	Market- to-Book Value	2011 Estimated Return on Common Equity	2012 Estimated Return on Common Equity	S&P Corporate Credit Rating
American States Water Company	55.00%	45.00%	5.50 x ¹	29.00% ¹	1.60 x	10.00%	10.50%	A+
Aqua America Inc.	47.00%	53.00%	3.60 x ²	20.40% ²	2.39 x	11.50%	11.50%	A+
California Water Service Group	49.50%	50.50%	3.30 x ⁴	15.00% ⁴	1.68 x	10.00%	10.00%	A+
Connecticut Water Service Inc.	51.00% ⁵	49.00% ⁵	4.60 x	14.70%	2.02 x	NA	NA	A
SJW Corporation	44.00%	56.00%	3.60 ⁶	15.00% ⁶	1.57 x	6.50%	7.00%	A
York Water Company	52.00% ³	48.00% ³	4.20 x	18.00% ⁷	2.31 x	NA	NA	A-
Average	49.75%	50.25%	4.13 x	18.68%	1.93 x	9.50%	9.75%	A

Sources:

The Value Line Investment Survey Ratings & Reports, July 22, 2011 for columns (1), (2), (6) and (7).
Standard & Poor's RatingsDirect for columns (3), (4) and (8).
AUS Utility Reports, September 2011 for column (5).

Notes:

- ¹ As of July 26, 2011.
² As of September 30, 2011.
³ Based on York Water Company's SEC Form 10-Q Filing for June 30, 2011.
⁴ As of June 30, 2011.
⁵ Based on Connecticut Water Service Inc.'s SEC Form 10Q Filing for June 30, 2011.
⁶ As of June 6, 2011.
⁷ As of April 29, 2011.

**Missouri-American Water Company
Case No. WR-2011-0337**

**Public Utility Revenue Requirement
or
Cost of Service**

The formula for the revenue requirement of a public utility may be stated as follows :

Equation 1 : **Revenue Requirement = Cost of Service**

or

Equation 2 : **$RR = O + (V - D)R$**

The symbols in the second equation are represented by the following factors :

RR	=	Revenue Requirement
O	=	Prudent Operating Costs, including Depreciation and Taxes
V	=	Gross Valuation of the Property Serving the Public
D	=	Accumulated Depreciation
(V - D)	=	Rate Base (Net Valuation)
(V - D)R	=	Return Amount (\$\$) or Earnings Allowed on Rate Base
R	=	$iL + dP + kE$ or Overall Rate of Return (%)
i	=	Embedded Cost of Debt
L	=	Proportion of Debt in the Capital Structure
d	=	Embedded Cost of Preferred Stock
P	=	Proportion of Preferred Stock in the Capital Structure
k	=	Required Return on Common Equity (ROE)
E	=	Proportion of Common Equity in the Capital Structure

Missouri-American Water Company
Case No. WR-2011-0337

Weighted Cost of Capital as of December 31, 2010
for Missouri-American Water Company

Capital Component	Percentage of Capital	Embedded Cost	Weighted Cost of Capital Using Common Equity Return of:		
			9.40%	9.90%	10.40%
Common Stock Equity	42.95%	----	4.04%	4.25%	4.47%
Preferred Stock	0.29%	9.21%	0.03%	0.03%	0.03%
Long-Term Debt	56.76%	6.19%	3.51%	3.51%	3.51%
Short-Term Debt	0.00%		0.00%	0.00%	0.00%
Total	<u>100.00%</u>		<u>7.58%</u>	<u>7.79%</u>	<u>8.01%</u>

Sources:
See Schedule 7 for the Capital Structure Ratios.

MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

COST OF SERVICE

APPENDIX 3

Alphabetical Listing of Testimony Schedules

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2011-0337

MISSOURI AMERICAN WATER COMPANY
Staff Recommended SCHEDULE of DEPRECIATION RATES Case WR-2011-0337
Same as Ordered Rates from Case WR-2010-0131

DIVISIONS: ALL , Including former Aqua, Loma Linda, and Roark

NARUC USOA ACCOUNT NUMBER	ACCOUNT DESCRIPTION	% DEPRECIATION RATE	AVERAGE SERVICE		% NET SALVAGE
			LIFE (YEARS)	IOWA CURVE	
Source of Supply					
311.0	Structures & Improvements	2.36	55	R4	-30
312.0	Collecting & Impoundment Reservoirs	1.25	80	R2.5	0
313.0	Lake, River & Other Intakes	1.77	65	R1.5	-15
314.0	Wells & Springs	1.82	55	R2.5	0
315.0	Infiltration Galleries and Tunnels	1.67	60	R2.5	0
316.0	Supply Mains	1.79	70	R3	-25
317.0	Miscellaneous Source of Supply - Other	4.00	25	SQ	0
Pumping Plant					
321.0	Structures & Improvements	1.80	75	R2.5	-35
322.0	Boiler Plant Equipment	2.22	45	R4	0
323.0	Power Generation Equipment	2.00	50	R3	0
324.0	Steam Pumping Equipment	2.62	42	R1.5	-10
325.0	Electric Pumping Equipment	2.62	42	R1.5	-10
326.0	Diesel Pumping Equipment	2.62	42	R1.5	-10
327.0	Hydraulic Pumping Equipment	2.62	42	R1.5	-10
328.0	Other Pumping Equipment	2.62	42	R1.5	-10
Water Treatment Plant					
331.0	Structures & Improvements	1.69	80	R3	-35
332.0	Water Treatment Equipment	2.89	45	R2.5	-30
333.0	Miscellaneous Water Treat, Other	3.33	30	SQ	0
Transmission and Distribution					
341.0	Structures & Improvements	2.40	50	R2.5	-20
341.1	Structures & Improve - Special Crossing	N/A	N/A	N/A	N/A
342.0	Distribution Reservoirs & Standpipes	2.25	60	R3	-35
343.0,1,2,3	Transmission & Distribution Mains	1.39	90	R2.5	-25
344.0	Fire Mains	1.56	80	S1	-25
345.0	Customer Services	2.92	65	S0.5	-90
346.0	Customer Meters	2.40	40	R1	4
347.0	Customer Meter Pits & Installation	2.40	40	R1	4
348.0	Fire Hydrants	1.85	65	R1.5	-20
349.0	Misc Trans & Dist - Other	2.00	50	R3	0
General Plant					
390.0	Structures & Improve - Shop & Garage	2.40	50	R3	-20
390.9	Structures & Improve - Leasehold	5.00	20	R4	0
391.0	Office Furniture	5.00	20		0
391.1	Computer & Peripheral Equipment	20.00	5		0
391.2	Computer Hardware & Software	20.00	5		0
391.3	Other Office Equipment	6.67	15		0
392.1	Transportation Equipment - Light trucks	11.25	8	L1.5	10
392.2	Transportation Equipment - Heavy trucks	10.00	9	L2	10
392.3	Transportation Equipment - Autos	18.00	5	L2	10
392.4	Transportation Equipment - Other	5.67	15	S2.5	15
393.0	Stores Equipment	4.00	25		0
394.0	Tools, Shop, Garage Equipment	5.00	20		0
395.0	Laboratory Equipment	6.67	15		0
396.0	Power Operated Equipment	7.73	11	L1.5	15
397.1	Communication Equip - Non Telephone	6.67	15		0
397.2	Communication Equip - Telephone	10.00	10		0
398.0	Miscellaneous Equip	6.67	15		0
399.0	Other Tangible Equipment	5.00	20		0

MISSOURI AMERICAN WATER COMPANY- Sewer

Staff Recommended SCHEDULE of DEPRECIATION RATES Case SR-2011-0338 (These recommended rates are intended to be consistent across all sewer divisions, and consistent between water and sewer for general plant)

DIVISIONS: All, including former Aqua, Roark, and Loma Linda

NARUC ACCOUNT NUMBER	ACCOUNT DESCRIPTION	% DEPRECIATION RATE	AVERAGE SERVICE LIFE (YEARS)	Curves	% NET SALVAGE
COLLECTION PLANT					
351	Structures & Improvements	2.50%	40		
352.1	Collection Sewers (Force)	2.00%	50		
352.2	Collection Sewers (Gravity)	2.00%	50		
353	Services To Customers	2.00%	50		
356	Other Collection Equipment	2.00%	50		
PUMPING PLANT					
361	Structures & Improvements	2.50%	40		
362	Receiving Wells	4.00%	25		
363	Electric Pumping Equip, (Includes Generators)	10.00%	10		
364	Diesel Pumping Equipment	10.00%	10		
365	Other Pumping Equipment	10.00%	10		
TREATMENT & DISPOSAL PLANT					
371	Structures & Improvements	2.50%	40		
372	Treatment & Disposal Equipment, (Includes pumps, blowers, generators)	5.00%	20		
373	Plant Sewers	2.00%	50		
374	Outfall Sewer Lines	2.00%	50		
General Plant					
390.0	Structures & Improve - Shop & Garage	2.40	50	R3	-20
390.9	Structures & Improve - Leasehold	5.00	20	R4	0
391.0	Office Furniture	5.00	20		0
391.1	Computer & Peripheral Equipment	20.00	5		0
391.2	Computer Hardware & Software	20.00	5		0
391.3	Other Office Equipment	6.67	15		0
392.1	Transportation Equipment - Light trucks	11.25	8	L1.5	10
392.2	Transportation Equipment - Heavy trucks	10.00	9	L2	10
392.3	Transportation Equipment - Autos	18.00	5	L2	10
392.4	Transportation Equipment - Other	5.67	15	S2.5	15
393.0	Stores Equipment	4.00	25		0
394.0	Tools, Shop, Garage Equipment	5.00	20		0
395.0	Laboratory Equipment	6.67	15		0
396.0	Power Operated Equipment	7.73	11	L1.5	15
397.1	Communication Equip - Non Telephone	6.67	15		0
397.2	Communication Equip - Telephone	10.00	10		0
398.0	Miscellaneous Equip	6.67	15		0
399.0	Other Tangible Equipment	5.00	20		0

Depreciation Appendix

History

Staff and MAWC conducted a depreciation study in one of MAWC's prior rate cases, Case No. WR-2008-0311. The study conducted included the water utility equipment, but not the sewer utility equipment. The retirement history used in the study included data through December 31, 2008. For water, the ordered depreciation rates assigned consistent depreciation rates to all MAWC water divisions existing at the time of the Report and Order. For sewer, this prior rate case assigned the standard small sewer company depreciation rates with the exception of the General Accounts which were not listed on the sewer company depreciation rate schedule.

Staff's recommended rates in this case are based on MAWC's past plant retirement history, with influence from retirement histories of similar utility companies and future plant operation expectations. Staff's objective in recommending rates is to match (1) the rate of money collection from ratepayers with (2) a straight line estimate of the life time cost of the plant utilized to provide the service.¹

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- ¹
1. The book keeping associated with regulatory depreciation expense is to:
 - a) Allocate and record the money collected from ratepayers for depreciation purposes to specific plant accounts,
 - b) Account for the consumption of the invested capital as plant equipment is retired from service,
 - c) Account for the cost of removal, salvage value received, and any third party payments such as insurance proceeds,
 - d) Provide a continuous and consistent method of recording of the above listed costs as a historical record for use in future depreciation analysis.
 2. The cost of plant in service is recorded as the original installed cost. The installed cost of plant includes costs other than just labor and materials, it also includes costs such as project planning, engineering, sales taxes, transportation, insurance and cost of funds provided during construction, supervision, and all associated overhead costs. This original cost of plant in service stays with the equipment until it is retired from utility service. A transfer of ownership by the Company to another company or set of investors does not alter this cost, regardless of the amount of money paid by the new owners to attain ownership.
 3. Only by order of the Commission may the cost of plant in service, the accumulated depreciation reserve, the depreciation rates, or the recording of depreciation expense be modified. Depreciation expense continues to be recorded and accumulated per Commission order until altered by a subsequent Commission order, even if the plant account in question is considered to be fully depreciated.

Definitions

Depreciation: NARUC USOA Water Class A&B 1973, Depreciation." as applied to depreciable utility plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and requirements of public authorities.

Basic Formulas for Depreciation of Living Accounts:

Depreciation expense = (Depreciation Rate) * (Total Original Cost of Plant in Service)

$$\text{Rate \%} = \frac{100 - (\text{Net Salvage \%})}{\text{ASL}} = \frac{100}{\text{ASL}} - \frac{\text{Net Salvage \%}}{\text{ASL}}$$

Average Service Life (ASL) is the average number of years the property in the account is expected to remain in service. ASL is usually determined using past retirement history within a depreciation study.

Net Salvage: Salvage value minus the cost of removal.

Net Salvage = gross salvage - cost of removal

$$\text{Net Salvage \%} = \frac{\text{Net Salvage \$}}{\text{Retirement \$}} * 100$$

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4. Depreciation expense is calculated as a percent of total plant in service for each plant account.
 5. The cost of installed plant is recorded as plant in service on the date the equipment in question is used to provide the utility service.
 6. The recorded cost of plant in service is independent of the source of funds used to pay for the installed plant. The source of funds may be from investors, loans, insurance proceeds, ratepayer or third party contributors, or simply still be accounts payable. The regulatory accounting system outside of the plant in service and depreciation section is used to address these issues.

Terminal versus Interim Net Salvage: Terminal net salvage occurs when an entire facility is removed from service. Interim net salvage occurs when a component of a facility is removed or replaced. When it is expected that the interim net salvage rate is a reasonable approximation for the terminal net salvage rate, it is sufficient to use the single (Net Salvage % / ASL) term, as shown above to represent both. Under the above traditional depreciation rate equation, the depreciation rate is applied to the entire facility original cost. The total current plant in service will at some point be retired, thus over the life of a plant facility, net salvage is collected for the total plant in service, and thus total reserves at planned facility retirement are expected to exceed the original cost of plant by the estimated amount required for cost of removal.

Cost of Removal: The cost associated with dismantling, removing, storing, decontaminating, and disposing of a retired unit of property.

Living Accounts: Groups of property which may experience interim retirements, but for which retired property is expected to be replaced by comparable property, with or without improvements in technology. (Often considered equivalent to the term Mass Property)

Mass Property: Continuous living group of property where routine replacements occur.

Remaining Life: Straight line depreciation over composite remaining life with corrections for existing accumulated reserves imbalances.

Whole Life: Straight line depreciation over composite life without any correction for existing accumulated reserve imbalances.

Site Visits

In connection with this case, Staff visited several MAWC facilities. In general, the facilities and equipment observed appeared well engineered, well maintained, of recent vintage, fenced for security, in good operating condition, and with safety and environmental practices in

place. Exceptions to this were the Parkville water treatment plant, and some of the Jefferson City waste water treatment facilities.

The Parkville treatment plant was found to be functioning and producing water for customers. The water treatment facility capacity is inadequate to meet the Parkville district customer demand, thus the system is augmented with water from the Kansas City municipal water system.

MAWC Overall Depreciation rate

The effective overall plant depreciation rate proposed by Staff is 2.03% for the water company assets and 4.02% for the sewer company assets. The sewer company assets represent 1.06% of overall plant, resulting in the overall company depreciation rate of 2.04%

MAWC Accumulated Depreciation Reserves

Staff reviewed individual plant accounts for over or under accrual of depreciation reserves. Staff found apparent excessive over or under depreciation accruals in some specific plant accounts for individual Company divisions. Staff submitted data requests to the Company on November 7, 2011, to inquire into the reasons for these apparent deficiencies. Staff has not received Company responses to these requests because they were not yet due when this report was filed. Staff reviewed MAWC's accumulated depreciation reserves as follows:

1. Staff revisited the Company depreciation study submitted for the prior rate case (Case No. WR-2008-0131) to compare overall Company book reserves versus theoretical reserves. This depreciation study used Company records through December 31, 2008. Staff used an estimation process to update the theoretical reserves for comparison to Company book reserves at December 31, 2010.

2. Staff reviewed depreciation reserves by plant account, comparing the accumulated depreciation to plant in service. This was conducted for each Company division (all 26 Staff EMS accounting runs).

The comparison of overall book reserve to theoretical (calculated) reserve is shown in the following table. The plant in service and reserves shown in this table will not match the Company or the Staff accounting runs because this table represents only depreciable accounts. Accounts such as land and land rights (which may have separate amortizations) are not included.

Method	Dec. 31 2008		Dec. 31 2010	
	Plant	Reserves	Plant	Reserves
Company book:	\$1,357,332,031	\$329,975,805	\$1,517,452,141	\$376,851,741
Company Calculated Reserves:		\$314,914,117		NA
PSC Staff Calculated Reserves:		\$310,851,485		\$371,549,571
Book Reserves as % of Plant		24.3%		24.8%

This table shows excess accumulated depreciation reserves of \$5 to 20 million, or approximately 1% of current plant in service.

Theoretical reserves are computed using current depreciation rate estimates and applying these rates to the known life history of current plant in service for each account. The life history for each account is normally only updated for a depreciation study, and thus the theoretical reserves are normally only available for the date the depreciation study is conducted. For the evaluation shown above, plant history of additions and retirements through December 31, 2008 was used. Staff used an estimation process to update theoretical reserves through December 31, 2010.

Aggregated Depreciation Rates

In any plant account, the average service life is just that, an average. No one item in the account is expected to actually match that life, yet all items in the account are assigned the same depreciation rate. This is also true regardless of the item's physical location, that is, the equipment in an account in any one facility or district is not expected to actually match that life exactly. In recognition of this, it is neither necessary nor appropriate to split out depreciation requirements for the Parkville facility, when in the aggregate; the Company has more than adequate retirement reserves.

Missouri-American Water Company
Case No. WR-2011-0337

Usage Per Customer- Residential (Gallons)

BRUNSWICK

per day 106.00
per month 3224.17
per year 38690.00

MEXICO

per day 134.75
per month 4098.65
per year 49183.75

PLATTE CO

per day 226.25
per month 6881.77
per year 82581.25

WARRENSBURG

per day 149.75
per month 4554.90
per year 54658.75

JEFFERSON CITY

per day 146.5
per month 4456.04
per year 53472.50

ST. CHARLES

per day 239.25
per month 7277.19
per year 87326.25

WARREN CO

per day 184.25
per month 5604.27
per year 67251.25

ST. JOSEPH

per day 155.75
per month 4737.40
per year 56848.75

JOPLIN

per day 171.25
per month 5208.85
per year 62506.25

ST. LOUIS-QUARTERLY

per day 234.5
per month 7132.71
per year 85592.50

**Missouri American Water Company (MAWC)
Staff's Corporate Allocation Factors**

MAWC District			Total Customers				Total Number of Bills	
			<i>(Source: Staff's Annualized Numbers at December 31, 2010)</i>				<i>(Source: Customer Annual Billing based upon Company's Test Year Number of Customers)</i>	
			Monthly	Quarterly	Total	Factor		Factor
MAWC WATER	Brunswick	BRU	472	0	472	0.100%	5,664	0.189%
	Jefferson City	JFC	12,578	0	12,578	2.672%	150,936	5.038%
	Joplin	JOP	28,407	0	28,407	6.035%	340,884	11.378%
	Mexico	MEX	5,716	0	5,716	1.214%	68,592	2.289%
	Parkville Water	PKW	6,864	0	6,864	1.458%	82,368	2.749%
	St. Joseph	SJO	37,339	0	37,339	7.933%	448,068	14.956%
	St. Louis Metro	SLM	32,692	331,545	364,237	77.383%	1,718,484	57.360%
	Warrensburg	WAR	8,228	0	8,228	1.748%	98,736	3.296%
	Warren County Water	WCW	442	0	442	0.094%	5,304	0.177%
MAWC SEWER	Cedar Hill	CDH	632	0	632	0.134%	7,584	0.253%
	Parkville Sewer	PKS	105	0	105	0.022%	1,260	0.042%
	Warren County Sewer	WCS	419	0	419	0.089%	5,028	0.168%
OTHER ACQUIRED WATER	Roark Water	RW	690	0	690	0.147%	8,280	0.276%
	Loma Linda	LL	334	0	334	0.071%	4,008	0.134%
OTHER SEWER	Roark Sewer	RWW	636	0	636	0.135%	7,632	0.255%
AQUA WATER	Maplewood - Lake Carmel	MWLC	437	0	437	0.093%	5,244	0.175%
	Rankin Acres	RA	86	0	86	0.018%	1,032	0.034%
	Riverside Estates	RE	284	0	284	0.060%	3,408	0.114%
	Spring Valley	SV	104	0	104	0.022%	1,248	0.042%
	Ozark Mountain	OMT	389	0	389	0.083%	4,668	0.156%
	Lakewood Manor	LWM	36	0	36	0.008%	432	0.014%
	Lake Taneycomo	LT	99	0	99	0.021%	1,188	0.040%
	White Branch	WB	146	0	146	0.031%	1,752	0.058%
AQUA SEWER	Jefferson City Sewer	JCWW	1,604	0	1,604	0.341%	19,248	0.642%
	Ozark Meadows	OMWW	24	0	24	0.005%	288	0.010%
	Maplewood Sewer	MPWW	386	0	386	0.082%	4,632	0.155%
Total			139,149	331,545	470,694	100.000%	2,995,968	100.000%

Staff applied the Allocation Factor to the following Corporate Accounts:

Other Revenues
Source of Supply - All accounts
Pumping - All accounts
Call Centers - All accounts
Account 903.2, Contract & Order Labor
Account 907, Service & Information

Account 902, Meter Reading
Account 903.3, Collecting Expense
Account 903.5, Billing & Accounting Expense
Account 903.6, Billing & Accounting Labor
Account 904 Uncollectible Accounts

**Missouri American Water Company (MAWC)
Staff's Corporate Allocation Factors**

MAWC District			Corporate Customer Accounting Composite				Length of Mains (feet)	
			Labor	Non-Labor	Total	Factor	Factor	
MAWC WATER	Brunswick	BRU	3,603	3,903	7,506	2.634%	75,618	0.229%
	Jefferson City	JFC	991	16,693	17,684	6.206%	828,852	2.505%
	Joplin	JOP	19,586	5,668	25,254	8.863%	2,560,457	7.738%
	Mexico	MEX	0	5,640	5,640	1.979%	477,467	1.443%
	Parkville Water	PKW	0	2,834	2,834	0.995%	480,332	1.452%
	St. Joseph	SJO	37,890	19,192	57,082	20.034%	3,265,307	9.868%
	St. Louis Metro	SLM	32,729	59,131	91,860	32.240%	24,394,687	73.721%
	Warrensburg	WAR	7,296	11,028	18,324	6.431%	557,803	1.686%
	Warren County Water	WCW	0	0	0	0.000%	61,473	0.186%
MAWC SEWER	Cedar Hill	CDH	194	2,353	2,547	0.894%	0	0.000%
	Parkville Sewer	PKS	0	0	0	0.000%	0	0.000%
	Warren County Sewer	WCS	0	0	0	0.000%	0	0.000%
OTHER ACQUIRED WATER	Roark Water	RW	0	0	0	0.000%	43,817	0.132%
	Loma Linda	LL	0	0	0	0.000%	75,932	0.229%
OTHER SEWER	Roark Sewer	RWW	0	0	0	0.000%	0	0.000%
AQUA WATER	Maplewood - Lake Carmel	MWLC	6,082	496	6,578	2.309%	34,450	0.104%
	Rankin Acres	RA	3,092	90	3,182	1.117%	9,308	0.028%
	Riverside Estates	RE	3,811	361	4,172	1.464%	33,464	0.101%
	Spring Valley	SV	4,632	135	4,767	1.673%	9,965	0.030%
	Ozark Mountain	OMT	5,137	451	5,588	1.961%	134,907	0.408%
	Lakewood Manor	LWM	3,066	45	3,111	1.092%	9,145	0.028%
	Lake Taneycomo	LT	3,294	143	3,437	1.206%	11,900	0.036%
	White Branch	WB	3,523	180	3,703	1.300%	25,568	0.077%
AQUA SEWER	Jefferson City Sewer	JCWW	13,659	2,198	15,857	5.565%	0	0.000%
	Ozark Meadows	OMWW	2,636	166	2,802	0.983%	0	0.000%
	Maplewood Sewer	MPWW	2,531	469	3,000	1.053%	0	0.000%
Total			153,752	131,176	284,928	100.000%	33,090,452	100.000%
Staff applied the Allocation Factor to the following Corporate Accounts:			Account 901, Supervision Account 905, Miscellaneous			All Transmission & Distribution Expense		

**Missouri American Water Company (MAWC)
Staff's Corporate Allocation Factors**

MAWC District			Labor Composite				Labor Excluding St. Louis, etc.	
			<i>(Source: Staff's Payroll Annualization as of December 31, 2010)</i>				<i>(Source: Staff's Payroll Annualization as of December 31, 2010)</i>	
			Total	Corp A&G	Difference	Factor	Factor	
MAWC WATER	Brunswick	BRU	\$125,225	\$9,315	\$115,910	0.507%	\$115,910	2.097%
	Jefferson City	JFC	\$1,000,919	\$74,457	\$926,462	4.049%	\$0	0.000%
	Joplin	JOP	\$1,726,670	\$128,444	\$1,598,226	6.985%	\$1,598,226	28.914%
	Mexico	MEX	\$367,342	\$27,326	\$340,016	1.486%	\$340,016	6.151%
	Parkville Water	PKW	\$262,528	\$19,529	\$242,999	1.062%	\$242,999	4.396%
	St. Joseph	SJO	\$1,995,510	\$148,443	\$1,847,068	8.072%	\$1,847,068	33.416%
	St. Louis Metro	SLM	\$18,173,516	\$1,351,897	\$16,821,619	73.515%	\$1,058,198	19.144%
	Warrensburg	WAR	\$346,973	\$25,811	\$321,162	1.404%	\$321,162	5.810%
	Warren County Water	WCW	\$58,112	\$4,323	\$53,789	0.235%	\$0	0.000%
MAWC SEWER	Cedar Hill	CDH	\$110,769	\$8,240	\$102,529	0.448%	\$0	0.000%
	Parkville Sewer	PKS	\$4,182	\$311	\$3,871	0.017%	\$3,871	0.070%
	Warren County Sewer	WCS	\$132,109	\$9,827	\$122,282	0.534%	\$0	0.000%
OTHER ACQUIRED WATER	Roark Water	RW	\$0	\$0	\$0	0.000%	\$0	0.000%
	Loma Linda	LL	\$0	\$0	\$0	0.000%	\$0	0.000%
OTHER SEWER	Roark Sewer	RWW	\$0	\$0	\$0	0.000%	\$0	0.000%
AQUA WATER	Maplewood - Lake Carmel	MWLC	\$55,936	\$4,161	\$51,775	0.226%	\$0	0.000%
	Rankin Acres	RA	\$0	\$0	\$0	0.000%	\$0	0.000%
	Riverside Estates	RE	\$41,723	\$3,104	\$38,619	0.169%	\$0	0.000%
	Spring Valley	SV	\$14,646	\$1,089	\$13,556	0.059%	\$0	0.000%
	Ozark Mountain	OMT	\$58,040	\$4,317	\$53,722	0.235%	\$0	0.000%
	Lakewood Manor	LWM	\$5,417	\$403	\$5,014	0.022%	\$0	0.000%
	Lake Taneycomo	LT	\$14,710	\$1,094	\$13,616	0.060%	\$0	0.000%
	White Branch	WB	\$21,806	\$1,622	\$20,184	0.088%	\$0	0.000%
AQUA SEWER	Jefferson City Sewer	JCWW	\$195,324	\$14,530	\$180,794	0.790%	\$0	0.000%
	Ozark Meadows	OMWW	\$3,570	\$266	\$3,305	0.014%	\$0	0.000%
	Maplewood Sewer	MPWW	\$5,798	\$431	\$5,367	0.023%	\$0	0.000%
Total			\$24,720,825	\$1,838,940	\$22,881,886	100.000%	\$5,527,451	100.000%
Staff applied the Allocation Factor to the following Corporate Accounts:			A&G expenses (except for Call Center adjmt, Bellville Lab & OPEB amort) General Plant (All plant recorded in Corporate district) Accumulated Depreciation Reserve on General Plant Accumulated Amortization Reserve Miscellaneous Non-deductible Expenses Prepayments related to insurance and other				OPEB Asset and Amortization	

**Missouri American Water Company (MAWC)
Staff's Corporate Allocation Factors**

MAWC District			Water Revenue		Sewer Revenue	
			<i>(Source: Staff's Annualized Revenues as of December 31, 2010)</i>		<i>(Source: Staff's Annualized Revenues as of December 31, 2010)</i>	
				Factor		Factor
MAWC WATER	Brunswick	BRU	\$384,280	0.163%	\$0	0.000%
	Jefferson City	JFC	\$5,850,705	2.483%	\$0	0.000%
	Joplin	JOP	\$18,224,033	7.733%	\$0	0.000%
	Mexico	MEX	\$3,559,325	1.510%	\$0	0.000%
	Parkville Water	PKW	\$5,307,847	2.252%	\$0	0.000%
	St. Joseph	SJO	\$20,928,031	8.881%	\$0	0.000%
	St. Louis Metro	SLM	\$176,149,467	74.750%	\$0	0.000%
	Warrensburg	WAR	\$3,781,621	1.605%	\$0	0.000%
	Warren County Water	WCW	\$339,483	0.144%	\$0	0.000%
MAWC SEWER	Cedar Hill	CDH	\$0	0.000%	\$479,979	20.879%
	Parkville Sewer	PKS	\$0	0.000%	\$82,177	3.575%
	Warren County Sewer	WCS	\$0	0.000%	\$270,205	11.754%
OTHER ACQUIRED WATER	Roark Water	RW	\$262,860	0.112%	\$0	0.000%
	Loma Linda	LL	\$111,385	0.047%	\$0	0.000%
OTHER SEWER	Roark Sewer	RWW	\$0	0.000%	\$294,926	12.830%
AQUA WATER	Maplewood - Lake Carmel	MWLC	\$153,203	0.065%	\$0	0.000%
	Rankin Acres	RA	\$52,703	0.022%	\$0	0.000%
	Riverside Estates	RE	\$116,199	0.049%	\$0	0.000%
	Spring Valley	SV	\$64,489	0.027%	\$0	0.000%
	Ozark Mountain	OMT	\$196,526	0.083%	\$0	0.000%
	Lakewood Manor	LWM	\$23,384	0.010%	\$0	0.000%
	Lake Taneycomo	LT	\$59,746	0.025%	\$0	0.000%
	White Branch	WB	\$85,456	0.036%	\$0	0.000%
AQUA SEWER	Jefferson City Sewer	JCWW	\$0	0.000%	\$1,022,979	44.500%
	Ozark Meadows	OMWW	\$0	0.000%	\$14,209	0.618%
	Maplewood Sewer	MPWW	\$0	0.000%	\$134,336	5.844%
Total			\$235,650,743	100.000%	\$2,298,811	100.000%
Staff applied the Allocation Factor to the following Corporate Accounts:			PSC Assessment for Water Operations		PSC Assessment for Sewer Operations	

**Missouri American Water Company (MAWC)
Staff's Corporate Allocation Factors**

MAWC District			Net Plant		Net Normalized Timing Difference		Net Book to Net Tax Basis Plant Difference	
			<i>(Source: Staff's December 31, 2010 Net Plant)</i>		<i>(Source: Staff's December 31, 2010 Net Normalized Timing Difference)</i>		<i>(Source: Staff's Net Book to Net Tax Basis as of December 31, 2010)</i>	
			Factor	Factor	Factor	Factor	Factor	
MAWC WATER	Brunswick	BRU	\$2,446,148	0.211%	\$18,588	0.056%	\$295,785	0.215%
	Jefferson City	JFC	\$22,066,871	1.903%	\$625,782	1.872%	\$2,570,840	1.865%
	Joplin	JOP	\$110,113,019	9.498%	\$1,204,828	3.604%	\$11,762,770	8.535%
	Mexico	MEX	\$19,466,644	1.679%	\$421,069	1.259%	\$2,087,377	1.515%
	Parkville Water	PKW	\$34,364,721	2.964%	\$713,807	2.135%	\$3,709,458	2.692%
	St. Joseph	SJO	\$99,652,121	8.596%	\$3,955,080	11.830%	\$11,548,355	8.379%
	St. Louis Metro	SLM	\$832,882,810	71.840%	\$24,791,440	74.152%	\$102,719,629	74.532%
	Warrensburg	WAR	\$19,982,589	1.724%	\$603,119	1.804%	\$2,274,255	1.650%
	Warren County Water	WCW	\$1,415,676	0.122%	\$37,594	0.112%	\$154,780	0.112%
MAWC SEWER	Cedar Hill	CDH	\$3,040,201	0.262%	\$173,265	0.518%	\$323,952	0.235%
	Parkville Sewer	PKS	\$45,402	0.004%	\$2,276	0.007%	\$7,267	0.005%
	Warren County Sewer	WCS	\$3,176,335	0.274%	\$33,400	0.100%	\$364,921	0.265%
OTHER ACQUIRED WATER	Roark Water	RW	\$1,507,610	0.130%	\$102,991	0.308%	\$0	0.000%
	Loma Linda	LL	\$441,383	0.038%	\$33,488	0.100%	\$0	0.000%
OTHER SEWER	Roark Sewer	RWW	\$3,409,252	0.294%	\$205,422	0.614%	\$0	0.000%
AQUA WATER	Maplewood - Lake Carmel	MWLC	\$441,349	0.038%	\$42,299	0.127%	\$0	0.000%
	Rankin Acres	RA	\$41,386	0.004%	\$10,922	0.033%	\$0	0.000%
	Riverside Estates	RE	\$336,711	0.029%	\$28,092	0.084%	\$0	0.000%
	Spring Valley	SV	\$51,386	0.004%	\$6,085	0.018%	\$0	0.000%
	Ozark Mountain	OMT	\$708,381	0.061%	\$70,602	0.211%	\$0	0.000%
	Lakewood Manor	LWM	\$107,907	0.009%	\$7,144	0.021%	\$0	0.000%
	Lake Taneycomo	LT	\$140,715	0.012%	\$11,739	0.035%	\$0	0.000%
	White Branch	WB	\$239,490	0.021%	\$15,195	0.045%	\$0	0.000%
AQUA SEWER	Jefferson City Sewer	JCWW	\$2,789,139	0.241%	\$261,713	0.783%	\$0	0.000%
	Ozark Meadows	OMWW	\$99,438	0.009%	\$4,113	0.012%	\$0	0.000%
	Maplewood Sewer	MPWW	\$384,196	0.033%	\$53,426	0.160%	\$0	0.000%
Total			\$1,159,350,880	100.000%	\$33,433,479	100.000%	\$137,819,389	100.000%
Staff applied the Allocation Factor to the following Corporate Accounts:			State Franchise Tax Prepaid Taxes (if any)	Annualized DIT based on each district's normalized timing differences	Deferred Income Tax Balances			

**Missouri American Water Company (MAWC)
Staff's Corporate Allocation Factors**

MAWC District		ITC Amoritzation (Bases: Direct assigned ITC balances)		Water Test Analyses Performed	
		<i>(Source: Staff's ITC Amoritzation at December 31, 2010)</i>		<i>(Source: Test Year Number of Analyses performed by Belleville Lab by district)</i>	
			Factor		Factor
MAWC WATER	Brunswick BRU	\$0	0.000%	219	6.600%
	Jefferson City JFC	\$0	0.000%	337	10.157%
	Joplin JOP	\$6,856	28.201%	337	10.157%
	Mexico MEX	\$0	0.000%	241	7.263%
	Parkville Water PKW	\$768	3.159%	341	10.277%
	St. Joseph SJO	\$16,687	68.640%	310	9.343%
	St. Louis Metro SLM	\$0	0.000%	1,160	34.961%
	Warrensburg WAR	\$0	0.000%	307	9.253%
	Warren County Water WCW	\$0	0.000%	66	1.989%
MAWC SEWER	Cedar Hill CDH	\$0	0.000%	0	0.000%
	Parkville Sewer PKS	\$0	0.000%	0	0.000%
	Warren County Sewer WCS	\$0	0.000%	0	0.000%
OTHER ACQUIRED WATER	Roark Water RW	\$0	0.000%	0	0.000%
	Loma Linda LL	\$0	0.000%	0	0.000%
OTHER SEWER	Roark Sewer RWW	\$0	0.000%	0	0.000%
AQUA WATER	Maplewood - Lake Carmel MWLC	\$0	0.000%	0	0.000%
	Rankin Acres RA	\$0	0.000%	0	0.000%
	Riverside Estates RE	\$0	0.000%	0	0.000%
	Spring Valley SV	\$0	0.000%	0	0.000%
	Ozark Mountain OMT	\$0	0.000%	0	0.000%
	Lakewood Manor LWM	\$0	0.000%	0	0.000%
	Lake Taneycomo LT	\$0	0.000%	0	0.000%
	White Branch WB	\$0	0.000%	0	0.000%
AQUA SEWER	Jefferson City Sewer JCWW	\$0	0.000%	0	0.000%
	Ozark Meadows OMWW	\$0	0.000%	0	0.000%
	Maplewood Sewer MPWW	\$0	0.000%	0	0.000%
Total		\$24,311	100.000%	3,318	100.000%
Staff applied the Allocation Factor to the following Corporate Accounts:		Corporate recorded ITC amortization		Belleville Lab costs/expense	